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Guidance for the Reregistration of Pesticide Products Containing Phenmedipham as the Active Ingredient of Pesticide Programs

(U.S.) Environmental Protection Agency
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This document contains information regarding the registration of pesticide products containing the subject active ingredient. The document includes how to register under a registration standard, regulatory position and rationale, and summaries of date requirements and data gaps. Also included is a bibliography containing citations of all studies reviewed by EPA in arriving at the positions and conclusions contained in the standard.

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GUIDANCE FOR THE REREGISTRATION OF PESTICIDE PRODUCTS

CONTAINING

PHENMEDIPHAM

AS THE ACTIVE INGREDIENT

CHEMICAL CODE: 098701
CAS NUMBER: 13684-63-4
CASE NUMBER: 0277

March 30, 1987

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF PESTICIDE PROGRAMS

WASHINGTON, D.C. 20460

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EPA Form 8570-27	Certification with Respect to Citation of Data

GLOSSARY

1. The Agency: U.S Environmental Protection Agency/EPA
2. ADI: Acceptable daily intake (mg/kg/day) of a pesticide by an individual weighing 60 kilograms
3. A.I.: Active ingredient
4. DCI: Data Call-In Notice
5. EPs: End-Use pesticide products
6. EUP: Experimental Use Permit
7. FIFRA: Federal Insecticide, Fungicide, Rodenticide Act (As amended)
8. MPs: Manufacturing-Use pesticide products
9. MPI: Maximum permitted intake of a pesticide in XX mg/day for a 60 kg individual.
10. NOEL: No Observed Effect Level
11. NPDES Permit: National Pollutant Discharge Elimination System
12. OES: Office of Endangered Species, U.S. Dept. of the Interior
13. PADI: a provisional/temporary ADI
14. RAC's: Raw agricultural commodities
15. 40 CFR: Title 40, Code of Federal Regulations
16. TMRC: Theoretical Maximum Residue Contribution for a pesticide in the daily diet is based on the total tolerances in addition to a daily food intake of X.X kg = X.X mg/kg.

I. INTRODUCTION

The Registration Standards Program

EPA has established the Registration Standards program in order to provide an orderly mechanism by which pesticide products containing the same active ingredient can be reviewed and standards set for compliance with FIFRA. The standards are applicable to reregistration and future applications for registration of products containing the same active ingredient. Each registrant of a product containing an active ingredient subject to this Standard who wishes to continue to sell or distribute that product must bring his product and labeling into compliance with FIFRA, as instructed by this Standard. Pesticides have been grouped into use clusters and will be reviewed on the basis of a ranking scheme giving higher priority to (1) pesticides in clusters used on food and feed crops; and (2) pesticides produced in large volumes.

The Registration Standards program involves a thorough review of the scientific data base underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the "no unreasonable adverse effects" criteria of FIFRA. In its review EPA identifies:

1. Studies that are acceptable to support the data requirements for the currently registered uses of the pesticide.

2. Additional studies necessary to support continued registration. The additional studies may not have been required when the product was initially registered or may be needed to replace studies that are now considered inadequate.

3. Labeling revisions needed to ensure that the product is not misbranded and that the labeling is adequate to protect man and the environment.

The detailed scientific review, which is not contained in this document, but is available upon request[1], focuses on

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[1]The scientific reviews may be requested from: Information Services Section (TS-768C), Office of Pesticide Programs, U.S. Environmental Protection Agency, Room 236, Crystal Mall #2, 1921 Jefferson Davis Highway, Arlington, Virginia 22202 (telephone (703) 557-4453).

the pesticide active ingredient. The scientific review primarily discusses the Agency's evaluation of and conclusions from available data in its files pertaining to the pesticide active ingredient. However, during the review of these data the Agency is also looking for potential hazards that may be associated with the end use products that contain the active ingredient. The Agency will apply the provisions of this Registration Standard to end use products if necessary to protect man and the environment.

EPA's reassessment results in the development of a regulatory position, contained in this Registration Standard, on the pesticide and each of its registered uses. See Section IV - Regulatory Position and Rationale. Based on its regulatory position, the Agency may prescribe a variety of steps to be taken by registrants to maintain their registrations in compliance with FIFRA. These steps may include:

1. Submission of data in support of product registration;

2. Modification of product labels;

3. Modifications to the manufacturing process of the pesticide to reduce the levels of impurities or contaminants;

4. Restriction of the use of the pesticide to certified applicators or other specially trained individuals;

5. Modification of uses or formulation types; or

6. Specification of packaging limitations.

Failure to comply with these requirements may result in the issuance of a Notice of Intent to Cancel or a Notice of Intent to Suspend (in the case of failure to submit data).

In addition, in cases in which hazards to man or the environment are identified, the Agency may initiate a special review of the pesticide in accordance with 40 CFR Part 154 to examine in depth the risks and benefits of use of the pesticide. If the Agency determines that the risks of the pesticide's use outweigh the benefits of use, the Agency may propose additional regulatory actions, such as cancellation of uses of the pesticide which have been determined to cause unreasonable adverse effects on the environment.

EPA has authority under the Data Call-In (DCI) provisions of FIFRA sec. 3(c)(2)(B) to require that registrants submit data to answer our questions regarding the chemical, toxicological, and environmental characteristics and fate of a pesticide. This Registration Standard lists the data EPA believes are necessary to resolve our concerns about this pesticide. These data are listed in Table A in Appendix I. Failure to comply with the DCI requirements enumerated in this Registration Standard may result in issuance by EPA of a Notice of Intent to Suspend the affected product registrations.

Registrants are reminded that FIFRA sec. 6(a)(2) requires them to submit factual information concerning possible unreasonable adverse effects of a pesticide at any time that they become aware of such information. You should notify the Agency of any information, including interim or preliminary results of studies, if those results suggest possible adverse effects on man or the environment. This requirement continues as long as your products are registered by the Agency.

II. CHEMICAL COVERED BY THIS STANDARD

A. Description of chemical

The following chemical is covered by this Registration Standard:

Common name:	Phenmedipham
Chemical name:	3-methoxycarbonylaminophenyl -3-methylcarbanilate
CAS Number:	13684-63-4
OPP (Shaughnessy) Number:	098701
Empirical Formula:	$C_{16}H_{16}N_2O_4$
Trade Names:	Betanal, GBP-1-127050, Kemipham, Morton EP-452, Phenmediphame, Schering 4072, Schering 4075, Schering 38584, SN 38584, Spinaid.
Chemical Family:	Carbanilate
Pesticide Type:	Herbicide
Year of Initial Registration:	1970
Registrants of Technical Products:	Schering AG, Nor-Am Chemical Co.

Description of physical characteristics of chemical:

Phenmedipham is an odorless white to slightly colored powder at room temperature, its melting point is 140-144° C, and its molecular weight is 300.3. Its water solubility is 3.1 mg/liter in pH 4 water at 25°C.

B. Use Profile

Type of pesticide:	Postemergence herbicide
Pests controlled:	Annual weeds
Registered Uses:	Field crops and vegetables
Predominant uses:	Sugar beets, table beets and spinach
Mode of activity:	Inhibition of photosynthesis
Single active ingredient:	97% technical
Formulations:	Emulsifiable concentrates (15.9% & 8.0% a.i.)
Methods of application:	Primarily applied as broadcast or banded spray by ground or aerial equipment.
Application Rates:	Table beets, spinach: 0.5 to 1 lb, sugar beets: 0.17 to 0.61 lb (lb ai/Acre).

III. AGENCY ASSESSMENT

A. SUMMARY

Phenmedipham is a postemergence carbanilate herbicide registered for use on annual weeds on the following sites: spinach, table beets and sugar beets. Most of this pesticide is applied on sugar beets. About 18 to 45% of the U.S. sugar beet crop is treated with phenmedipham. Application rates for all uses range from 0.17 to 1.00 lb. a.i./acre per season.

Application techniques vary from aerial application to various types of ground applications.

The Agency has reviewed all of the data submitted to support the registration of phenmedipham, as well as open literature information relevant to this compound. Based on the review of these data, the Agency has reached the following conclusions:

1. The rat chronic feeding study with phenmedipham showed a NOEL for oncogenicity greater than 500 ppm (25 mg/kg), highest dose tested (HDT). This study was classified as core-supplementary data for oncogenic effects and core-minimum data for chronic feeding. Although an increase in neoplastic findings was not observed in this study up to and including a dosage level of 500 ppm (HDT), the oncogenic potential of phenmedipham cannot be ascertained in the absence of a maximum tolerated dose. The body weight gain changes noted in the high dose females during the second year are minimal evidence of systemic toxicity (less than 10%). Therefore, the NOEL for systemic effects is 100 ppm with a lowest observed effect level (LOEL) for systemic effects at 500 ppm (HDT).

   In a dog chronic feeding study, phenmedipham showed a NOEL of 1000 ppm (25 mg/kg, HDT). Neoplastic findings were not observed in this study up to and including a dosage level of 1,000 ppm (HDT).

   This chemical is not structurally similar to known carcinogens.

2. For the reproduction/teratology study in rats with Phenmedidipham, the NOEL for reproductive effects is greater than 500 ppm (HDT). The NOEL for systemic toxicity is 100 ppm, with a LOEL for systemic effects of 500 ppm (HDT) based on the reduced body weights in the parental generations (P_1 and and P_2 males) and lower body weights in the F_{1a} male pups, F_{2a} female pups and F_{3a} male pups on day 21.

3. For the teratology segment, dosing was in the feed rather than by gavage as is presently recommended, and the highest dose used (500 ppm) in the study did not show significant maternal toxicity (not a limit dose) as is presently required. The teratology study in the rat must be repeated.

4. Phenmedipham exhibits low acute oral (Category IV) and dermal (Category III) toxicity to mammals.

B. RISK CONCERNS

Available data indicate that there are minimal effects to the environment when phenmedipham is applied in accordance with current practices in agriculture.

C. OTHER SCIENCE FINDINGS

1. Ecological Effects

There is sufficient information to characterize phenmedipham as having very low toxicity on an avian dietary basis (> 10,000 ppm) for Bobwhite quail and Mallard duck. However, an avian single-dose oral toxicity study is lacking, therefore this test is required. There is sufficient acute toxicity data to characterize technical phenmedipham as moderately toxic to fish and aquatic invertebrates. The 96-hour toxicity test values were 1.41 ppm for Rainbow trout and 3.98 ppm for bluegill. The 48-hour toxicity test value for Daphnia magna was 3.2 ppm. In a laboratory acute contact study, phenmedipham was shown to be very low in toxicity to honey bees.

Available toxicity data indicate that uses of Phenmedipham are unlikely to pose a hazard to endangered aquatic or avian species.

Phytotoxicity is not a concern because phenmedipham has low volatility and it has limited terrestrial use on minor crops.

2. Environmental Fate

a. Ground Water

A ground water DCI was issued for phenmedipham. The data received were insufficient to fully assess the leaching potential of parent compound and metabolites in a variety of soils. However, available studies indicate that phenmedipham has low mobility in loamy sand soils.

b. Degradation

In acid solution, phenmedipham is relatively stable, but at neutral and basic conditions, it readily hydrolyzes. Under aerobic conditions in loamy sand soil, phenmedipham degraded with half-lives of 120 days at pH 5.0 and 20 days at pH 6.8. A major degradation product was CO_2.

D. TOLERANCE REASSESSMENT

Sufficient data are available to ascertain the adequacy of the established tolerances for residues of phenmedipham in or on table beet roots and tops, sugar beet roots and tops, and spinach (40 CFR 180.278).

Tolerances for phenmedipham have been approved for the raw agricultural commodities (RAC's) listed below.

Crop	Tolerance(ppm)	Food Factor a/	mg/day(1.5kg)
Beets	0.20	0.17	0.00052
Sugar, beet roots	0.10	3.64	0.00546
Sugar, beet tops	0.10	3.64	0.00546
Spinach	0.50	0.05	0.00038

The provisional acceptable daily intake (PADI) for phenmedipham is based on a 104 week rat feeding study. The systemic NOEL for for this study is 100 ppm (5 mg/kg). The systemic lowest observed effect level (LOEL) is 500 ppm (25 mg/kg/day, HDT). There is also a 104 week dog feeding study with a NOEL of greater than 1000 ppm (25 mg/kg, HDT). Utilizing a safety factor of 100, the PADI was set at 0.05 mg/kg/day. This is equivilant to a maximum permitted intake (MPI) of 3.00 mg/day for a 60 kg individual. The theoretical maximum residue contribution (TMRC) for phenmedipham in the daily diet based on the total tolerances above and a daily food intake of 1.5 kg is 0.0064 mg/day. Under these conditions, 0.21% of the PADI has been utilized.

Data gaps exist for plant and animal metabolism, analytical methods, and storage stability. Processing studies are required for sugar beets. Since the data required for individual commodities are dependent on metabolism data, the Agency recommends that metabolism data be obtained and submitted prior to any required residue data.

The Agency will propose the following revisions:

1. The negligible residue designation (N) for beets and sugar beet roots and tops be deleted from the 40 CFR;
2. The tolerance definition be amended to specify "3-methoxycarbonylaminophenyl-3-methylcarbanilate" as the residue of concern instead of "methyl m-hydroxycarbanilate m-methylcarbanilate"; and
3. The tolerance definition for "beets" be amended to "beets, table".

The Agency conludes that the above revisions are necessary to clarify current residue chemistry terminology.

a/ Food factor: Percentage (of the particular crop) in an average daily diet of 1.5 kilograms consumed by a 60 kg individual.

There are Canadian tolerances of 0.1 ppm for phenmedipham residues in or on sugar beets and tops but no tolerances on spinach and table beets. There are no Mexican tolerances, Codex Maximum Residue Levels, or exemptions for phenmedipham on sugar beets, spinach and table beets.

E. SUMMARY OF LABEL CHANGES AND DATA GAPS

The Agency has determined that label revisions must be made in the following areas (See Section D, Part IV).

° Environmental Precautions

The Agency has identified data necessary to evaluate the environmental and human risks associated with the use of phenmedipham. These data must be developed in order to maintain registrations of products or register new products containing phenmedipham. The following table summarizes the data gaps, including product chemistry information. Please note that this is only a summary and details can be obtained by referring to Table A.

Summary of Data Gaps - Phenmedipham

158.120 Product Chemistry

All of the Product Chemistry data are required.

158.125 Residue Chemistry:

171-4 Nature of Residue (Plant & Animal Metabolism)
171-4 Residue Analytical Methods
171-4 Storage Stability
171-4 Residue Studies on Crops, Processed Food/Feed Commodities

158.135 Toxicology:

81-3 Acute Inhalation Toxicity (Rat)
81-4 Primary Eye Irritation Toxicity (Rabbit)
81-5 Primary Dermal Irritation (Rabbit)
81-6 Dermal Sensitization (Guinea pig)
82-2 Subchronic Dermal (21-day)
83-2 Oncogencity (Two species)
83-3 Teratogenicity (Two species)
84-2 Mutagenicity
85-1 Metabolism

158.130 Environmental Fate

- 161-1 Hydrolysis
- 161-2 Photodegradation in Water
- 162-2 Anaerobic Soil Metabolism
- 163-1 Mobility Studies (Leaching & Adsorption/ Desorption)
- 164-1 Soil Dissipation
- 165-1 Rotational Crops (Confined)
- 165-4 Accumulation in Fish

158.145 Wildlife and Aquatic Organisms

- 71-1 Avian Oral Toxicity

IV. REGULATORY POSITION AND RATIONALE

A. Regulatory Positions

Based on a review and evaluation of all available data and other relevant information on the herbicide, phenmedipham, the Agency has reached the determinations listed below.

1. The Agency has determined that phenmedipham does not exceed any of the risk criteria for adverse effects in 40 CFR, Section 154.7 at the present time.

   Rationale: Available data indicate the following:

   a. Phenmedipham does not promote neoplastic findings in chronic toxicity studies of rats, (However, its oncogenic potential cannot be ascertained without a maximum tolerated dose.),
   b. Except for weight changes in a 3 generation rat study, this compound does not induce reproductive effects in rats,
   c. It does not pose a risk of serious acute injury to humans, domestic animals or non-target organisms and,
   d. It does not cause the destruction of habitat of non-target organisms.

2. The Agency has determined that certain toxicological studies are required to support the reregistration of phenmedipham products.

   Rationale: The Agency does not have the following data on phenmedipham which meet Agency guidelines for toxicological testing required to support its registration: acute inhalation toxicity, primary eye irritation, primary dermal irritation, dermal sensitization, subchronic dermal (21-day), oncogenicity in two species, teratology in two species, mutagenicity and and metabolism studies.

3. The Agency has determined that present precautionary statements for persons handling or applying phenmedipham products are sufficient for the labels of manufacturing-use and end-use products.

   Rationale: Available data indicate that phenmedipham causes low oral (Category IV) and dermal (Category III) toxicities in test animals. Therefore, the labeling of these products contains statements that caution persons applying or handling this compound, give first aid instructions, and require the use of precautionary measures to ensure safe handling of the pesticide products.

4. The Agency has determined that reentry intervals for workers are not required for phenmedipham products.

Rationale: The low acute toxicity of this chemical does not warrant significant concern about exposure of workers reentering treated areas, according to the criteria in 40 CFR Part 158.140. Phenmedipham products have been determined to be low in acute oral, and dermal toxicity, and no chronic health concerns have been identified.

5. At this time, the Agency will defer action on ground water issues until receipt and evaluation of environmental fate data.

Rationale: The Agency evaluated the data submitted in response to the May 1984, Ground Water Data Call-In for Phenmedipham, and found them to be inadequate. Subsequently, the Agency required the registrant to resubmit ground water data. The data were submitted to the Agency and again were found to be inadequate.

Available data indicate that phenmedipham has low mobility in loamy sand soils. These data are inadequate to fully assess the potential of phenmedipham to reach ground water supplies.

The necessary environmental fate studies are being repeated at the present time. Until these data are received and found acceptable by the Agency, data gaps in environmental fate exist. Therefore, these data are required under the Phenmedipham Registration Standard. (See Data Appendices, Table A).

6. The Agency is requiring labeling which warns of potential hazards to aquatic organisms. (See Part IV, Section D. Required Labeling).

Rationale: Available acute toxicity data indicate that phenmedipham is moderately toxic to fish and aquatic invertebrates.

7. The available data indicate that this pesticide, when applied at recommended rates, does not present unreasonable hazards to birds.

Rationale: Existing studies on this compound indicate that its dietary toxicity to birds is very low.

8. The Agency has determined that specific labeling to mitigate potential hazards to endangered species is not necessary because available data indicate that phenmedipham does not promote unreasonable adverse effects in the environment.

Rationale: Phenmedipham exhibits low toxicity to avian species, and moderate toxicity to fish and aquatic invertebrates. Crops treated with this pesticide are not planted in the habitat of endangered plants. In addition, this chemical has low volatility and will not readily drift from its application sites to endangered plants.

9. The Agency will not require phytotoxicity data.

Rationale: Phenmedipham has low volatility and will not readily drift from its application sites to non-target plants and it has limited terrestrial use on minor crops.

10. While the data gaps are being filled, currently registered MPs and EPs containing phenmedipham as the sole active ingredient may be sold, distributed, formulated and used in the United States, subject to the terms and conditions specified in this Standard. Registrants must provide and agree to develop additional data, as specified in the Data Appendices of this guidance document, in order to maintain existing registrations.

Rationale: Under FIFRA, the Agency does not normally cancel or withhold registration simply because data are missing or inadequate (see FIFRA sec. 3(c)(2)(B) and 3(c)(7)).

Issuance of this Standard provides a mechanism for identifying data needs. These data will be evaluated, after which the Agency will determine if additional regulatory changes are necessary.

B. Criteria for Registration

To be registered or reregistered under this Standard, manufacturing-use products must contain phenmedipham as the sole active ingredient, bear required labeling, and conform to the product composition, acute toxicity limits, and use pattern requirements listed in this Section.

C. Acceptable Ranges and Limits

1. Product Composition Standard

To be covered under this Standard, manufacturing-use products (MPs) must contain phenmedipham as the sole active ingredient. Each MP formulation proposed for registration must be fully described with an appropriate certification of limits, stating maximum and minimum amounts of the active ingredient which may be present in products.

2. Acute Toxicity Limits

The Agency will consider registration of technical grade and MP products containing phenmedipham, provided that the product labeling bears appropriate precautionary statements for the acute toxicity category in which each product is placed.

3. Use Patterns

To be registered under this Standard, manufacturing use products containing Phenmedipham must be labeled for formulation into end-use products only for the commodities listed below. The EPA Index to Pesticide Chemicals for Phenmedipham lists all registered uses, as well as approved maximum application rates and frequencies.

- Terrestrial food uses on field and vegetable crops: table beets, spinach and sugar beets.

D. Required Labeling

To be registered under this standard, all manufacturing-use and end-use phenmedipham products must bear appropriate labeling as specified in 40 CFR 162.10, and below. Appendix II contains information on label requirements.

Pesticide products containing phenmedipham released for shipment by a registrant or producer of that product after April 30, 1988, are required to bear an amended label which complies with the requirements of this Standard.

Pesticide products containing phenmedipham which are distributed, sold, offered for sale, held for sale, shipped, delivered for shipment, or received and (having been so received) delivered or offered to be delivered by any person after April 30, 1989, are required to bear an amended label which complies with the requirements of this Standard.

The following information must appear on the labeling within the time limits specified above:

1. Ingredient Statement

The ingredient statement for all manufacturing-use products containing phenmedipham products must list the active ingredient in the following manner (example):

"3-methoxycarbonylaminophenyl-3-methylcarbanilate .....%";

2. Use Pattern Statements

All manufacturing-use products containing phenmedipham must state that they are intended for formulation into end-use products for only the aforementioned use patterns. Labeling must specify sites for each approved use pattern. However, no use may be included on the label if the registrant fails to comply with the data requirements for that use pattern, as listed in Table A of the Data Appendices of this document.

3. Precautionary Statements

a. Manufacturing-Use Product Statements

All phenmedipham products intended for formulation into end-use products must bear the following statements:

"This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA."

b. End-Use Product Statements

The following precautionary statements must appear on all phenmedipham EP labels:

"This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes."

V. PRODUCTS SUBJECT TO THIS STANDARD

All products containing one or more of the pesticides identified in Section II.A. are subject to certain requirements for data submission or changes in composition, labeling or packaging of the product. The applicable requirements depend on whether the product is a manufacturing or end use product and whether the pesticide is the sole active ingredient or one of multiple active ingredients.

Products are subject to this Registration Standard as follows:

A. Manufacturing use products containing this pesticide as the sole active ingredient are subject to:

1. The restrictions (if any) upon use, composition, or packaging listed in Section IV, if they pertain to the manufacturing use product.

2. The data requirements listed in Tables A and B[2]

3. The labeling requirements specified for manufacturing use products in Section IV.

4. Administrative requirements (application forms, Confidential Statement of Formula, data compensation provisions) associated with reregistration.

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[2] Data requirements are listed in the three Tables in Appendix I of this Registration Standard. The Guide to Tables in that Appendix explains how to read the Tables.

Table A lists generic data requirements applicable to all products containing the pesticide subject to this Registration Standard. Table B lists product-specific data applicable to manufacturing use products. The data in Tables A and B need not be submitted by a producer who is eligible for the formulator's exemption for that active ingredient.

Table C lists product-specific data applicable to end use products. The Agency has decided that, in most cases, it will not require the submission of product-specific data for end use products at this time. Therefore most Registration Standards do not contain a Table C.

B. Manufacturing use products containing this pesticide as one of multiple active ingredients are subject to:

The data requirements listed in Table A.

C. End use products containing this pesticide as the sole active ingredient are subject to:

1. The restrictions (if any) upon use, composition, or packaging listed in Section IV if they pertain to the end use product.

2. If eligible for the formulator's exemption[3], the data requirements listed in Table C.

3. If not eligible for the formulator's exemption, the data requirements listed in Table A and the data requirements listed in Table C.

4. The labeling requirements specified for end use products in Section IV.

D. End use products containing this pesticide as one of multiple active ingredients are subject to:

a. If not eligible for the formulator's exemption, the date requirements listed in Tables A and C.

b. If eligible for the formulator's exemption, the data requirements listed in Table C.

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[3] If you purchase from another producer and use as the source of your active ingredient only EPA-registered products, you are eligible for the formulator's exemption for generic data concerning that active ingredient (Table A) and product-specific data for the registered manufacturing use product you purchase (Table B).

Two circumstances nullify this exemption:

1) If you change sources of active ingredient to an unregistered product, formulate your own active ingredient, or acquire your active ingredient from a firm with ownership in common with yours, you individually lose the exemption and become subject to the data requirements in Table A.

2) If no producer subject to the generic data requirements in Table A agrees to submit the required data, all end use producers lose the exemption, and become subject to those data requirements.

VI. REQUIREMENT FOR SUBMISSION OF GENERIC DATA

This portion of the Registration Standard is a notice issued under the authority of FIFRA sec. 3(c)(2)(B). It refers to the data listed in Table A, which are required to be submitted by registrants to maintain in effect the registration of products containing this active ingredient.[4]

A. What are generic data?

Generic data pertain to the properties or effects of a particular active ingredient. Such data are relevant to an evaluation of all products containing that active ingredient regardless of whether the product contains other ingredients. (unless the product bears labeling that would make the data requirement inapplicable).

Generic data may also be data on a "typical formulation" of a product. "Typical formulation" testing is often required for ecological effects studies and applies to all products having that formulation type. These are classed as generic data, and are contained in Table A.

B. Who must submit generic data?

All current registrants are responsible for submitting generic data in response to a data request under FIFRA sec. 3(c)(2)(B) (DCI Notice). EPA has decided, however, not to require a registrant who qualifies for the formulator's exemption (FIFRA sec. 3(c)(2)(D) and § 152.85) to submit generic data in response to a DCI notice if the registrant who supplies the active ingredient in his product is complying with the data request.

If you are not now eligible for a formulator's exemption, you may qualify for one if you change your source of supply to a registered source that does not share ownership in common with your firm. If you choose to change sources of supply, the Confidential Statement of Formula must identify the new source(s) and you must submit a Formulator's Exemption Statement form.

If you apply for a new registration for products containing this active ingredient after the issuance of this Registration Standard, you will be required to submit or cite generic data relevant to the uses of your product if, at the time

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[4] Registrations granted after issuance of this Standard will be conditioned upon submission or citation of the data listed in this Registration Standard.

the application is submitted, the data have been submitted to the Agency by current registrants. If the required data have not yet been submitted, any new registration will be conditioned upon the new registrant's submission or citation of the required data not later than the date upon which current registrants of similar products are required to provide such data. See FIFRA sec. 3(c)(7)(A). If you thereafter fail to comply with the condition of that registration to provide data, the registration may be cancelled (FIFRA sec. 6(e)).

C. What generic data must be submitted?

You may determine which generic data you must submit by consulting Table A. That table lists the generic data needed to evaluate current uses of all products containing this active ingredient, the uses for which such data are required, and the dates by which the data must be submitted to the Agency.

D. How to comply with DCI requirements.

Within 90 days of your receipt of this Registration Standard, you must submit to EPA a completed copy of the form entitled "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1, enclosed) for each of your products. On that form you must state which of the following six methods you will use to comply with the DCI requirements:

1. You will submit the data yourself.

2. You have entered into an agreement with one or more registrants to jointly develop (or share in the cost of developing) the data, but will not be submitting the data yourself. If you use this method, you must state who will submit the data on which you will rely. You must also provide EPA with documentary evidence that an agreement has been formed which allows you to rely upon the data to be submitted. Such evidence may be: (1) your letter offering to join in an agreement and the other registrant's acceptance of your offer, (2) a written statement by the parties that an agreement exists, or (3) a written statement by the person who will be submitting the data that you may rely upon its submission. The Agency will also require adequate assurance that the person whom you state will provide the data is taking appropriate steps to secure it. The agreement to produce the data need not specify all of the terms of the final arrangement between the parties or a mechanism to resolve the terms.

If you and other registrants together are generating or submitting requested data as a task force or consortium, a representative of the group should request a Joint Data Submitter Number from the Registration Support and Emergency Response Branch, Registration Division. The request must include the following information:

a. A list of the members of the consortium;
b. The name and address of the designated representative of the consortium, with whom EPA will correspond concerning the data;
c. Identity of the Registration Standard containing the data requirement;
d. A list of the products affected (from all members of the consortium); and
e. Identification of the specific data that the consortium will be generating or submitting.

The Agency will assign a number to the consortium, which should be used on all data submissions by the consortium.

3. You have attempted to enter into an agreement to jointly develop data, but no other registrant has accepted your offer. You request that EPA not suspend your registration for non-compliance with the DCI. EPA has determined that, as a general policy, it will not suspend the registration of a product when the registrant has in good faith sought and continues to seek to enter into a data development/cost sharing program, but the other registrants developing the data have refused to accept its offer. [If your offer is accepted, you may qualify for Option 2 above by entering into an agreement to supply the data.]

In order to qualify for this method, you must:

1. File with EPA a completed "Certification of Attempt to Enter into an Agreement with other Registrants for Development of Data" (EPA Form 8580-6, enclosed).

2. Provide us with a copy of your offer to the other registrant and proof of the other registrant's receipt of your offer (such as a certified mail receipt). Your offer must, at a minimum, contain the following language or its equivalent:

> [Your company name] offers to share in the burden of producing the data required pursuant to FIFRA sec. 3(c)(2)(B) in the Dichlobenil Registration Standard upon terms to be agreed or failing agreement to be bound by binding arbitration as provided by FIFRA section 3(c)(2)(B)(iii).

The remainder of your offer may not in any way attempt to limit this commitment. If the other registrant to whom your offer is made does not accept your offer, and if the other registrant informs us on a DCI Summary Sheet that he will develop and submit the data required under the DCI, then you may qualify for this option. In order for you to avoid suspension under this method, you may not later withdraw or limit your offer to share in the burden of developing the data. In addition, the other registrant must fulfill its commitment to develop and submit the data.

4. You request a waiver of the data requirement. If you believe that a data requirement does not (or should not) apply to your product or its uses, you must provide EPA with a statement of the reasons why you believe this is so. Your statement must address the specific composition or use factors that lead you to believe that a requirement does not apply. Since the Agency has carefully considered the composition and uses of pesticide products in determining that a data requirement applies, EPA does not anticipate that many waivers will be granted. A request for waiver does not extend the timeframes for developing required data, and if your waiver request is denied, your registration may be suspended if you fail to submit the data.

5. You request that EPA amend your registration by deleting the uses for which the data are needed. You are not required to submit data for uses which are no longer on your label.

6. You request voluntary cancellation of the registration of your product(s) for which the data are needed.

E. Procedures for requesting a change in testing protocol.

If you will generate the required data and plan to use test procedures which deviate from (or are not specified in) either EPA's Pesticide Assessment Guidelines or the Reports of Expert Groups to the Chemicals Group, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must submit for EPA approval the protocols you propose to use.

You should submit your protocols before beginning testing and await EPA approval, because the Agency will not ordinarily accept as sufficient studies using unapproved protocols. A request for protocol approval will not extend the timeframe for submission of the data, nor will extensions generally be given to conduct studies due to submittal of inappropriate protocols.

F. Procedures for requesting extensions of time.

If you think that you will need more time to generate the data than is allowed by EPA's schedule, you may submit a request for an extension of time. Any request for a time extension which is made as an initial response to a section 3(c)(2)(B) request notice must be submitted in writing to the Product Manager listed at the end of this section and must be made before the deadline for response. Once dates have been committed to and EPA has accepted these commitments, any subsequent requests for a time extension must be submitted

in writing to the Office of Compliance Monitoring at the address given in Section IX.E.

EPA will view failure to request an extension before the response deadline as a waiver of any future claim that there was insufficient time to submit the data. While EPA considers your request, you must strive to meet the deadline for submitting the data.

The extension request should state the reasons why you believe that an extension is necessary and the steps you have taken to meet the testing deadline. Time extensions normally will not be granted due to problems with laboratory capacity or adequacy of funding, since the Agency believes that with proper planning these can be overcome. Time extensions may be considered when joint data development is planned, or when the Agency must approve a new or modified protocol before the study can be begun.

A request for an extension does not extend the timeframe for submission of the data. If EPA denies your request for a time extension and you do not submit the data as requested, EPA may begin proceedings to suspend the registrations of your products.

G. Existing stocks provision upon suspension or cancellation.

The Agency has determined that if a registration is suspended for failure to respond to a DCI request under FIFRA sec. 3(c)(2)(B), an existing stocks provision is not consistent with the Act. Accordingly, the Agency does not anticipate granting permission to sell or distribute existing stocks of suspended product except in rare circumstances. If you believe that your product will be suspended or cancelled and that an existing stocks provision should be granted, you have the burden of clearly demonstrating to EPA that granting such permission would be consistent with the Act. The following information must be included in any request for an existing stocks provision:

1. Explanation of why an existing stocks provision is necessary, including a statement of the quantity of existing stocks and your estimate of the time required for their sale or distribution; and

2. Demonstration that such a provision would be consistent with the provisions of FIFRA.

VII. REQUIREMENT FOR SUBMISSION OF PRODUCT-SPECIFIC DATA

Under its DCI authority, EPA has determined that certain product-specific data are required to maintain your registrations in effect. Product-specific data are derived from testing using a specific formulated product, and, unlike generic data, generally support only the registration of that product. All such data must be submitted by the dates specified in this Registration Standard.

If you have a manufacturing use product, these data are listed in Table B. If you have an end use product, the data are listed in Table C. As noted earlier, the Agency has decided that it will not routinely require product-specific data for end use products at this time. Therefore, Table C may not be contained in this Registration Standard; if there is no Table C, you are not required to submit the data at this time.

In order to comply with the product specific data requirements, you must follow the same procedures as for generic data. See Section IV.D, E, F, and G. You should note, however, that product chemistry data are required for every product, and the only acceptable responses are options IV.D.1. (submit data) or IV.D.6.(cancellation of registration).

Failure to comply with the product-specific data requirements for your products will result in suspension of the product's registration.

VIII. REQUIREMENT FOR SUBMISSION OF REVISED LABELING

FIFRA requires each product to be labeled with accurate, complete and sufficient instructions and precautions, reflecting the Agency's assessment of the data supporting the product and its uses. General labeling requirements are set out in 40 CFR 162.10 (see Appendix II - LABELING and SUMMARY). In addition, labeling requirements specific to products containing this pesticide are specified in Section IV.D of this Registration Standard. Applications submitted in response to this notice must include draft labeling for Agency review.

If you fail to submit revised labeling as required, which complies with 40 CFR 162.10 and the specific instructions in Section IV.D., EPA may seek to cancel or suspend the registration of your product under FIFRA sec. 6.

IX. INSTRUCTIONS FOR SUBMISSION

A. Manufacturing Use Products (MUPs) containing Phenmedipham as sole active ingredient.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division for each product subject to this Registration Standard:

a. The "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1), with appropriate attachments.[5]

b. Confidential Statement of Formula (EPA Form 8570-4).

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

d. Evidence of compliance with data compensation requirements of FIFRA sec. 3(c)(1)(D). Refer to 40 CFR 152.80-152.99.

2. Within 9 months from receipt of this document you must submit to the Product Manager:

a. Application for Pesticide Registration (EPA Form 8570-1).

b. Two copies of any required product-specific data (See Table B).

c. Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft label must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text.

d. Product Specific Data Report (EPA Form 8580-4).

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[5] If on the Summary Sheet, you commit to develop the data, present arguments that a data requirement is not applicable or should be waived, or submit protocols or modified protocols for Agency review, you must submit a copy of the Summary Sheet (and any supporting information) to the Office of Compliance Monitoring, which will be monitoring the data generated in response to this notice. This submission is in addition to responding to the Product Manager, and should be submitted to the Office of Compliance Monitoring at the address given at the end of this section. (Actual studies are not to be submitted to the Office of Compliance Monitoring.)

3. Within the times set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

B. Manufacturing Use Products containing Phenmedipham in combination with other active ingredients.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

a. FIFRA sec. 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

b. Confidential Statement of Formula (EPA Form 8570-4)

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

2. Within the time frames set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

C. End Use Products containing Phenmedipham as sole active ingredient.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

a. FIFRA Section 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

b. Confidential Statement of Formula (EPA Form 8570-4).

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

2. Within 9 months from receipt of this document you must submit to the Product Manager:

a. Two copies of any product-specific data, if required by Table C.

b. Product Specific Data Report (EPA Form 8580-4), if Table C lists required product-specific data.

c. Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft labeling must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text. End use product labeling must comply specifically with the instructions in Section IV (Regulatory Position and Rationale).

D. Intrastate Products containing Phenmedipham either as sole active ingredient or in combination with other active ingredients.

These products are being called in for full Federal registration. Producers of these products are being sent a letter instructing them how to submit an application for registration.

E. Addresses

The required information must be submitted to the following address:

Robert J. Taylor, PM-25
Registration Division (TS-767C)
Office of Pesticide Programs
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460

The address for submissions to the Office of Compliance Monitoring is:

Laboratory Data Integrity Program
Office of Compliance Monitoring (EN-342)
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460.

TGUIDE-1

GUIDE TO TABLES

Table A contain listings of data requirements for the pesticides covered by this Registration Standard.

Table A contains generic data requirements that apply to the pesticide in all products, including data requirements for which a "typical formulation" is the test substance.

The data tables are generally organized according to the following format:

1. Data Requirement (Column 1). The data requirements are listed in the order in which they appear in 40 CFR Part 158. The reference numbers accompanying each test refer to the test protocols set out in the Pesticide Assessment Guidelines, which are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

2. Test Substance (Column 2). This column lists the composition of the test substance required to be used for the test, as follows:

TGAI = Technical grade of the active ingredient
PAI = Pure active ingredient
PAIRA = Pure active ingredient, radio labeled
TEP = Typical end use formulation
MP = Manufacturing use product
EP = End use product

Any other test substances, such as metabolites, will be specifically named in Column 2 or in footnotes to the table.

3. Use pattern (Column 3). This column indicates the use patterns to which the data requirement applies. Use patterns are the same as those given in 40 CFR Part 158. The following letter designations are used for the given use patterns:

A = Terrestrial, food
B = Terrestrial, non-food
C = Aquatic, food
D = Aquatic, non-food
E = Greenhouse, food
F = Greenhouse, non-food
G = Forestry
H = Domestic outdoor
I = Indoor

Any other designations will be defined in a footnote to the table.

4. Does EPA have data? (Column 4). This column indicates one of three answers:

YES - EPA has data in its files that satisfy this data requirement. These data may be cited by other registrants in accordance with data compensation requirements of Part 152, Subpart E.

PARTIALLY - EPA has some data in its files, but such data do not fully satisfy the data requirement. In some cases, the Agency may possess data on one of two required species, or may possess data on one test substance but not all. The term may also indicate that the data available to EPA are incomplete. In this case, when the data are clarified, or additional details of the testing submitted by the original data submitter, the data may be determined to be acceptable. If this is the case, a footnote to the table will usually say so.

NO - EPA either possesses no data which are sufficient to fulfill the data requirement, or the data which EPA does possess are flawed scientifically in a manner that cannot be remedied by clarification or additional information.

5. Bibliographic citation (Column 5). If the Agency has acceptable data in its files, this column lists the identifying number of each study. This normally is the Master Record Identification (MRID) number, but may be a GS number if no MRID number has been assigned. Refer to the Bibliography Appendices for a complete citation of the study.

6. Must additional data be submitted? (Column 6). This column indicates whether the data must be submitted to the Agency. If column 3 indicates that the Agency already has data, this column will usually indicate NO. If column 3 indicates that the Agency has only partial data or no data, this column will usually indicate YES. In some cases, even though the Agency does not have the data, EPA will not require its submission because of the unique characteristics of the chemical; because data on another chemical can be used to fulfill the data requirement; or because the data requirement has been waived or reserved. Any such unusual situations will be explained in a footnote to the table.

7. Timeframe for submission (Column 7). If column 5 requires that data be submitted, this column indicates when the data are to be submitted, based on the issuance date of the Registration Standard. The timeframes are those established either as a result of a previous Data Call-In letter, or standardized timeframes established by PR Notice 85-5 (August 22, 1985).

8. Footnotes (at the end of each table). Self-explanatory.

TABLE A

DRAFT

GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM 97% TECHNICAL[a] (EPA REG. NO. 45639-84)

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation[1]	Must Addtl Data be Submitted?	Time Frame for Submission
§158.120 Product Chemistry						
Product Identity and Composition:						
61-1 - Product Identity and Disclosure of Ingredients	TGAI	All	No	N/A	Yes	6 Months
61-2 - Description of Beginning Materials and Manufacturing Process	TGAI	All	No	N/A	Yes 2/	6 Months
61-3 - Discussion of Formation of Impurities	TGAI	All	No	N/A	Yes 3/	6 Months
Analysis and Certification of Product Ingredients						
62-1 - Preliminary Analysis of Product Samples	TGAI	All	No	N/A	Yes 4/	12 Months
62-2 - Certification of Ingredient Limits	TGAI	All	No	N/A	Yes 5/	12 Months
62-3 - Analytical Methods to Verify Certified Limits	TGAI	All	No	N/A	Yes 6/	12 Months
Physical and Chemical Characteristics						
63-2 - Color	TGAI	All	No	N/A	Yes	6 Months
63-3 - Physical State	TGAI	All	No	N/A	Yes	6 Months
63-4 - Odor	TGAI	All	No	N/A	Yes	6 Months
63-5 - Melting Point	TGAI	All	No	N/A	Yes	6 Months
63-6 - Boiling Point	TGAI	All	No		No 7/	
63-7 - Density, Bulk Density, or Specific Gravity	TGAI	All	No	N/A	Yes	6 Months

TABLE A

GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM, 97% TECHNICAL[a] (EPA REG. NO. 45639-84)

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation[1]	Must Addtl Data be Submitted?	Time Frame for Submission
§158.120 Product Chemistry (Continued)						
63-8 - Solubility	TGAI or PAI		No	N/A	Yes 8/	6 Months
63-9 - Vapor Pressure	PAI		No	N/A	Yes	6 Months
63-10 - Dissociation Constant	PAI		No	N/A	Yes	6 Months
63-11 - Octanol/Water Partition Coefficient	PAI		No	N/A	Yes	6 Months
63-12 - pH	TGAI		No	N/A	Yes	6 Months
63-13 - Stability	TGAI		No	N/A	Yes	6 Months
Other Requirement: 64-1 - Submittal of samples	N/A		No		No 9/	

TABLE A

GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM, 97% TECHNICAL[a] (EPA REG. NO. 45639-84)

§158.120 Product Chemistry (Continued)

a The 97% Technical serves as a manufacturing-use product.

1/ Not applicable. Although product chemistry data may have been submitted in the past, the Agency has determined that certain data must be resubmitted for each pesticide. New requirements have been introduced and previously submitted data must be updated.

2/ The following additional data are required for the 97% Technical: a. Details of the manufacturing process, including the relative amounts of beginning materials, a description of the equipment used to produce the product, reaction conditions, the duration of each step of the process, purification procedures, and quality control measures. b. The name and address of the manufacturer, producer, and supplier of each beginning material used to manufacture the product. Also, a copy of all technical specifications, data sheets, and other documents in which the manufacturing producer, or supplier of the beginning material describes its composition and properties must be submitted.

3/ The following additional information is required: A discussion of each impurity believed to be present at ≥0.1%, based on knowledge of the beginning materials, all possible chemical reactions, and any contamination.

4/ In order to satisfy this data requirement, five or more representative samples must be analyzed for the amount of active ingredient and each impurity present at ≥0.1% (w/w) using valid analytical methods.

5/ The following data must be submitted on EPA Form 8570-4 (Rev 2/85): a. Upper limits must be provided, validate and certified for each impurity present at ≥0.1% (w/w). b. Upper and lower limits must be provided, validated, and certified for Phenmedipham.

6/ None of the submitted methods was adequately validated. The following data are required: Quantitative methods to determine phenmedipham and all impurities for which a certified limit is required. Each method must be accompanied by validation studies of the precision and accuracy of the method.

7/ Data not required since the melting point of the active ingredient is greater than 40°C.

8/ Additional data are required: Solubility must be reported at g/100 ml and various temperatures recorded in the tests.

9/ The compound does not require submittal of samples at this time.

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation		Must Addtl Data be Submitted?	Time Frame for Submission
§158.125 Residue Chemistry						
171-4 - Nature of Residue (Metabolism)						
- Plants	PAIRA	Partially	00044726 00067281	00076662 00114931	Yes 1/	18 Months
- Livestock	PAIRA & Plant Meatbolites	No	-		Yes 2/	18 Months
171-4 - Residue Analytical Method						
- Plant residues	TGAI & Metabolites	Partially	00081757 00081759 00114936	00115847 00116709	Yes 4/	15 Months
- Animal Residues	TGAI	No	-		Yes 3/	15 Months
171-4 - Storage Stability Data	PAI	Partially	00081239	00114931	Yes 5/	15 months
171-4 - Magnitude of the Residue - Residue Studies						
a. Root & Tuber Vegetables 6/						
° Table Beets, roots						
-- Crop Field Trials	TEP	Yes	00114930,		No	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.125 Residue Chemistry - Continued					
171-4 - Magnitude of the Residue - Residue Studies					
° Sugar Beets, Roots					
-- Crop Field Trials	TEP	Yes	00047866 00081753 00049752 00081760 00066111 00113841 00070104 00115847 00070106	No	
-- Processed Food/Feed	EP	No	-	Yes 7/	24 Months
b. Leaves of Root & Tuber Vegetables 8/					
° Table Beets, Greens					
-- Crop Field Trials	TEP	Yes	00114930	No	
° Sugar Beet Tops					
-- Crop Field Trials	TEP	Yes	00049752 00113841 00066111 00114931 00070104 00115847 00070106	No	
c. Leafy Vegetables 9/					
° Spinach					
-- Crop Field Trials	TEP	Yes	00071436 00081240	No	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.125 Residue Chemistry - Continued					
171-4 - Magnitude of the Residue - Residue Studies					
d. Meat/Milk/ Poultry/Eggs	TGAI or Plant Metabolites	No		Reserved 10/	
- Potable Water	TEP	No		No 11/	
- Fish	TEP	No		No 11/	
- Irrigated Crops	TEP	No		No 11/	
- Food Handling	TEP	No		No 11/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

§158.125 Residue Chemistry - Continued

1/ The metabolism of phenmedipham [3-methoxycarbonylamino 3-methylcarbanilate] is not adequately understood due to incomplete identification of metabolites. The following data are required: Data depicting the uptake, distribution, and metabolism of chain-labeled and phenyl-labeled [^{14}C]phenmedipham in either sugar beets or table beets and spinach; the identities and quantities of residues in or on mature plant parts must be determined in order to clarify the terminal residues; residue identities must be confirmed by a method such as GC, HPLC, and/or mass spectrometry.

2/ Metabolism studies utilizing ruminants and poultry are required. Animals must be dosed for at least 3 days with ^{14}C labeled phenmedipham at a concentration in the total diet that will result in sufficient residues in the tissues, milk, and eggs to permit characterization. Animals must be sacrificed within 24 hours of the final dosing. Milk and eggs must be collected twice daily. ^{14}C-Residues in muscle, fat, kidney, liver, milk, and eggs must be characterized. Should the metabolism of phenmedipham in ruminants and poultry be found to be significantly different, studies of swine metabolism may be required.

[Note: Representative samples from the metabolism studies requested above must also be analyzed using accepted enforcement methods to ascertain their validity.]

3/ No methods were submitted for collection of data reflecting residues of phenmedipham in animal commodities. Therefore, the following data must be submitted: Complete descriptions of analytical methods, including residue and validation data, for detection and quantitation of phenmedipham in animal commodities, including meat, milk, poultry and eggs.

4/ Regulated pesticide residues are subjected to the multiresidue procedures published in an Addendum to Pesticide Assessment Guidelines Subdivision O - Residue Chemistry Data Requirements for Analytical Methods in 40 CFR Part 158.125 Multiresidue Protocols. Such testing has not been conducted on phenmedipham. Therefore, the following data are required: Residues of phenmedipham in or on crop samples subjected to analysis by the multiresidue method protocols. Protocols for methods I, II, III, and IV are available from National Technical Information Service under Order No. PB 86 203734/AS.

5/ Additional storage stability data are required.

a. The storage intervals and conditions of samples used to support all established tolerances for residues must be submitted. These data must be accompanied by data depicting the percent decline in residues at the times and under the conditions specified. (No additional stability studies are required for plant commodities stored frozen for up to 3 months.) On receipt of these data, the adequacy of the aforementioned tolerances will be reevaluated.

b. All residue data requested in this standard must be accompanied by data depicting the duration and conditions of storage of samples analyzed. These data must be accompanied by data depicting the stability of residues under the conditions and for the time intervals specified, with the exception of those in or on plant commodities stored frozen for $\leq$3 months.

c. Data delineating the stability of phenmedipham analog in animal products (tissues, milk, and eggs). Spiked samples should be stored at subfreezing temperatures for intervals approximating the storage intervals associated with treated samples used to determine the magnitude of the residue. [If the requested metabolism data indicate the presence of additional residues of toxicological concern in plant and animal commodities, data depicting the stability of such residues in storage will be required].

6/ If a registrant seeks a crop group tolerance for root and tuber vegetables, then he must submit the following information: Propose use directions, and appropriate supporting residue data for the additional representative group member, turnips.

7/ No data were submitted reflecting residues in or on products processed from sugar beet roots bearing measurable weathered residues. Therefore, the following are required: Data reflecting phenmedipham residues of concern in or on dehydrated pulp, molasses, and refined sugar processed from sugar beets bearing measurable weathered residues. It may be necessary to use exaggerated rates to obtain such residues. If residues are found to concentrate upon processing, then appropriate food/feed additive tolerances must be proposed.

8/ If a registrant seeks a crop group tolerance for the leaves of root and tuber vegetables, then he must submit the following information: Proposed use directions, and appropriate supporting residue data for the additional representative group member, turnips.

9/ If a registrant seeks a crop group tolerance for leafy vegetables, then he must submit the following information: Proposed use directions, and appropriate supporting residue data for the additional representative group members (head lettuce, leaf lettuce and celery).

10/ Presently, the nature of the residue in animals is not adequately understood. Upon review of the data requested in the section entitled "Nature of Residue in Animals," the appropriateness of tolerances for residues in animal products will be determined. Data requirements regarding the magnitude of residues in animal products will not be determined until all requested data regarding metabolism in animals and magnitude of residues in feed items have been received.

11/ The Guidelines and use patterns indicate that these data are not required.

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.130 Environmental Fate						
DEGRADATION STUDIES-LAB:						
161-1 - Hydrolysis	TGAI or PAIRA	A	No		Yes	9 Months
Photodegradation						
161-2 - In water	TGAI or PAIRA	A	Partially	00142741	Yes 1/	9 Months
161-3 - On soil	TGAI or PAIRA	A	Yes	00142742	No	
161-4 - In Air	TGAI or PAIRA	A	No		No 2/	
METABOLISM STUDIES-LAB:						
162-1 - Aerobic Soil	TGAI or PAIRA	A	Yes	00142744	No	
162-2 - Anaerobic Soil	TGAI or PAIRA	A	Partially	00142746	Yes 3/	27 Months
162-3 - Anaerobic Aquatic	TGAI or PAIRA	N/A	No		No 4/	
162-4 - Aerobic Aquatic	TGAI or PAIRA	N/A	No		No 4/	
MOBILITY STUDIES:						
163-1 - Leaching & Adsorption/ Desorption	TGAI or PAIRA	A	Partially	00142749, 00142747	Yes 5/	12 Months
163-2 - Volatility (Lab)	TEP	A	No		No 2/	
163-3 - Volatility (Field)	TEP	A	No		No 2/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.130 Environmental Fate - Continued						
DISSIPATION STUDIES-FIELD:						
164-1 - Soil	TEP	A	Partially	00114931, 00142751	Yes 6/	27 Months
164-2 - Aquatic (Sediment)	TEP	N/A	No		No 4/	
164-3 - Forestry	TEP	N/A	No		No 4/	
164-4 - Combination and Tank Mixes	- -	N/A	No		No 8/	
164-5 - Soil, Long-term	TEP	A	No		Reserved 7/	
ACCUMULATION STUDIES:						
165-1 - Rotational Crops (Confined)	PAIRA	A	No		Yes 9/	39 Months
165-2 - Rotational Crops (Field)	TEP	A	No		Reserved 10/	
165-3 - Irrigated Crops	TEP	N/A	No		No 4/	
165-4 - In Fish	TGAI or PAIRA	A	No		Yes	12 Months
165-5 - In Aquatic Non-Target Organisms	TEP	N/A	No		No 4/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.140 Reentry Protection						
132-1 - Foliar Dissipation	TEP	A	No		No 4/	
132-1 - Soil Dissipation	TEP	A	No		No 4/	
133-3 - Dermal Exposure	TEP	A	No		No 4/	
133-4 - Inhalation Exposure	TEP	A	No		No 4/	
§158.142 Spray Drift						
201-1 - Droplet Size Spectrum	TEP	A	No		No 4/	
201-1 - Drift Field Evaluation	TEP	A	No		No 4/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

§158.130 Environmental Fate - Continued

1/ Additional data are required: nature of the light source; intensity, wavelength distribution and relationship of light intensity to that of natural sunlight, and documentation for a material balance study.

2/ Test is not required because Phenmedipham has low vapor pressure.

3/ Identity of the degradate, methyl-N(3-hydroxyphenyl)-carbamate, must be verified.

4/ The Guidelines and use patterns indicate that these data are not required.

5/ Data are required from two other soil samples for column leaching or three other soil samples for adsorption/desorption studies.

6/ Additional data are required: composition of formulations used in the tests, chronological records, and names of the key scientests involved in the studies. Also, tests for soil residues at greater depths are reserved pending results of crop rotation soil data and additionallaboartory leaching data.

7/ Tests are reserved pending results of the soil dissipation studies.

8/ The data requirements for combination and tank mixes are not addressed in this Standard.

9/ Studies must be conducted using U.S. soil plots and soil residues must be measured to a minimum depth of 15 cm and the identity of leached residues must be confirmed.

10/ Tests are reserved pending results of the confined rotational crop studies.

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Date Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted	Time Frame for Submission
§158.135 Toxicology						
ACUTE TESTING:						
81-1 - Acute Oral Toxicity	TGAI	A,	Yes	00067579,00076497,	No	
81-2 - Acute Dermal Toxicity	TGAI	A,	Yes	00155585,	No	
81-3 - Acute Inhalation Toxicity	TGAI	A,	No	-	Yes	9 Months
81-4 - Primary Eye Irritation	TGAI	A,	No	-	Yes	9 Months
81-5 - Primary Dermal	TGAI	A,	No	-	Yes	9 Months
81-6 - Dermal Sensitization	TGAI	A,	No	-	Yes	9 Months
81-7 - Acute Delayed Neurotoxicity - Hen	TGAI	A,	No		No 1/	
SUBCHRONIC TESTING:						
82-1 - 90-Day Feeding - Rodent Nonrodent (dog)	TGAI	A,	No		No 2/	
82-2 - 21-Day Dermal	TGAI	A,	No		Yes	12 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.135 Toxicology - Continued						
SUBCHRONIC TESTING:						
82-3 - 90-Day Dermal	TGAI	A,	No		No 3/	
82-4 - 90-Day Inhalation	TGAI	A,	No		No 3/	
82-5 - 90-Day Neurotoxicity-Hen	TGAI	A,	No		No 1/	
CHRONIC TESTING:						
83-1 - Chronic Toxicity - Rodent (rat)	TGAI	A,	Yes	00028651	No	
Nonrodent (dog)	TGAI	A,	Yes	00028650	No	
83-2 - Oncogenicity - Rat	TGAI	A,	No	-	Yes 4/	50 Months
Mouse	TGAI	A,	No	-	Yes	May 1988 5/
83-3 - Teratogenicity - Rat	TGAI	A,	No	-	Yes	15 Months
Rabbit	TGAI	A,	No	-	Yes	15 Months
83-4 - Reproduction - 2-generation	TGAI	A,	Yes	00027482	No	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation		Must Addtl Data be Submitted?	Time Frame for Submission
§158.135 Toxicology - Continued							
MUTAGENICITY TESTING							
84-2 - Gene Mutation (Ames Test)	TGAI	A,	No	-		Yes	9 Months
84-2 - Structural Chromosomal Aberration	TGAI	A,	No	-		Yes	12 Months
84-2 - Other Genotoxic Effects	TGAI	A,	No	-		Yes	12 Months
SPECIAL TESTING							
85-1 - General Metabolism	PAI or PAIRA	A,	Partially	00067595	00076653	Yes	24 Months
85-2 - Domestic Animal Safety	Choice	A,	No			No 3/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

§158.135 Toxicology - Continued

1/ Phenmedipham is not an organophosphate and available data do not indicate a neurotoxicological problem.

2/ There is an adequate chronic study to meet this requirement.

3/ Use patterns in conjunction with the Guidelines indicate that these data are not required.

4/ To fulfill this requirement, a carcinogenicity study in rats is currently in progress.

5/ To fulfill the September 12, 1983 Data Call-In requirement, a two year oncogenicity study in mice will be completed by the registrant in May 1988.

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.145 Wildlife and Aquatic Organisms						
AVIAN AND MAMMALIAN TESTING						
71-1 - Avian Oral LD_{50}	TGAI	A	No	-	Yes	9 Months
71-2 - Avian Dietary LC_{50}						
a. Waterfowl	TGAI	A	Yes	00115850	No	
b. Upland game bird	TGAI	A	Yes	00115849	No	
71-3 - Wild Mammal Toxicity	TGAI	A	No		No 1/	
71-4 - Avian Reproduction						
a. Waterfowl	TGAI	A	No		No 2/	
b. Upland game bird	TGAI	A	No		No 2/	
71-5 - Simulated Field Testing - Mammals, and - Birds	TEP	A	No		No 2/	
Actual Field Testing - Mammals, and - Birds	TEP	A	No		No 2/	
AQUATIC ORGANISM TESTING						
72-1 - Acute Toxicity, Freshwater Fish						
a. Warmwater	TGAI	A	Yes	00116336	No	
b. Coldwater	TGAI	A	Yes	00116337	No	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.145 Wildlife and Aquatic Organisms						
AQUATIC ORGANISM TESTING						
72-2 - Acute LC_{50} Freshwater Invertebrates	TGAI	A	Yes	00115851	No	
72-3 - Acute LC_{50} Estuarine and Marine Organisms	TGAI	A	No		No 4/	
72-4 - Fish Early Life Stage and Aquatic Invertebrate Life-Cycle	TGAI	A	No		No 3/	
72-5 - Fish full life-cyle	TGAI	A	No		No 3/	
72-6 - Aquatic Organism Accumulation	TGAI, PAI, Degradation Product	A	No		No 4/	
72-7 - Simulated Field Testing - Aquatic Organisms	TEP	A	No		No 3/	
- Actual Field Testing - Aquatic Organisms						
.....						
§158.150 Plant Protection 5/						

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

§158.145 Wildlife and Aquatic Organisms - Continued

1/ Phenmedipham is considered to be low in toxicity to mammals, therefore the study is not required.
2/ Phenmedipham is considered to be very low in toxicity to waterfowl and upland gamebirds, therefore, the study is not required.
3/ Phenmedipham is considered to be moderately toxic to both warmwater and coldwater species of fish, therefore, the study is not required.
4/ Phenmedipham is considered to be moderately toxic to freshwater invertebrates, and the use patterns (i.e. terrestrial food crops: sugar beets, table beets and spinach) indicate that these studies are not required.

5/ Because of the low volatility and terrestrial uses on certain crops (spinach, sugar beets & table beets), no phytotoxicity data for phenmedipham will be required at this time. Note that phytotoxicity testing can be required on a case-by-case basis to support, among others, products that may pose hazard to endangered or threatened plant species.

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation	Must Addtl Data be Submitted?	Time Frame for Submission
§158.155 Nontarget Insect						
NONTARGET INSECT TESTING - POLLINATORS:						
141-1 - Honey bee acute contact toxicity	TGAI	A	Yes	00036935	No	
141-2 - Honey bee - toxicity of residues on foliage	TEP	A	No		No 1/	
141-4 - Honey bee subacute feeding study	(Reserved) 2/					
141-5 - Field testing for pollinators	TEP	A	No		No 1/	
NONTARGET INSECT TESTING - AQUATIC INSECTS:						
142-1 - Acute toxicity to aquatic insects	(Reserved) 3/					
142-1 - Aquatic insect life-cycle study	(Reserved) 3/					
142-3 - Simulated or actual field testing for aquatic insects	(Reserved) 3/					
143-1 thru 143-3 - NONTARGET INSECT TESTING - PREDATORS AND PARASITES	(Reserved) 3/					

TABLE A
GENERIC DATA REQUIREMENTS FOR PHENMEDIPHAM

1/ Data from the acute contact study show low toxicity to honey bees. Therefore, no further testing is required.
2/ Data requirement is reserved pending development of test methodology.
3/ Data requirement is reserved pending an Agency decision as to whether the data requirement should be established.

Item 6B. POUNDS PER GALLON STATEMENT - For liquid agricultural formulations, the pounds per gallon of active ingredient must be indicated on the label.

Item 7. FRONT LABEL PRECAUTIONARY STATEMENTS - Front panel precautionary statements must be grouped together, preferably within a block outline. The table below shows the minimum type size requirements for various size labels.

Size of Label on Front Panel in Square Inches	Signal Word Minimum Type Size All Capitals	"Keep Out of Reach of Children" Minimum Type Size
5 and under	6 point	6 point
above 5 to 10	10 point	6 point
above 10 to 15	12 point	8 point
above 15 to 30	14 point	10 point
over 30	18 point	12 point

Item 7A. CHILD HAZARD WARNING STATEMENT - The statement "Keep Out of Reach of Children" must be located on the front panel above the signal word except where contact with children during distribution or use is unlikely. [40 CFR 162.10(h)(1)(ii)]

Item 7B. SIGNAL WORD - The signal word (DANGER, WARNING, or CAUTION) is required on the front panel immediately below the child hazard warning statement. [40 CFR 162.10 (h)(1)(i)]

Item 7C. SKULL & CROSSBONES AND WORD "POISON" - On products assigned a toxicity Category I on the basis of oral, dermal, or inhalation toxicity, the word "Poison" shall appear on the label in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word POISON. [40 CFR 162.10(h)(1)(i)]

Item 7D. STATEMENT OF PRACTICAL TREATMENT - A statement of practical treatment (first aid or other) shall appear on the label of pesticide products in toxicity Categories I, II, and III. [40 CFR 162.10(h)(1)(iii)]

Item 7E. REFERRAL STATEMENT - The statement "See Side (or Back) Panel for Additional Precautionary Statements" is required on the front panel for all products, unless all required precautionary statements appear on the front panel. [40 CFR 162.10(h)(1)(iii)]

Item 8. SIDE/BACK PANEL PRECAUTIONARY LABELING - The precautionary statements listed below must appear together on the label under the heading "PRECAUTIONARY STATEMENTS." The preferred location is at the top of the side or back panel preceding the directions for use, and it is preferred that these statements be surrounded by a block outline. Each of the three hazard warning statements must be headed by the appropriate hazard title. [40 CFR 162.10(h)(2)].

Item 8A. HAZARD TO HUMANS AND DOMESTIC ANIMALS - Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. [40 CFR 162.10(h)(2)(i)]

Item 8B. ENVIRONMENTAL HAZARD - Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury, or damage. [40 CFR 162.10(h)(2)(ii)]

Item 8C. PHYSICAL OR CHEMICAL HAZARD - FLAMMABILITY Precautionary statements relating to flammability of a product are required to appear on the label if it meets the criteria in the PHYS/CHEM Labeling Appendix. The requirement is based on the results of the flashpoint determinations and flame extension tests required to be submitted for all products. These statements are to be located in the side/back panel precautionary statements section, preceded by the heading "Physical/Chemical Hazards." Note that no signal word is used in conjunction with the flammability statements.

Item 9A. RESTRICTED USE CLASSIFICATION - FIFRA sec. 3(d) requires that all pesticide formulations/uses be classified for either general or restricted use. Products classified for restricted use may be limited to use by certified applicators or persons under their direct supervision (or may be subject to other restrictions that may be imposed by regulation).

In the Registration Standard, the Agency has (1) indicated certain formulations/uses are to be restricted (Section IV indicates why the product has been classified for restricted use); or (2) reserved any classification decision until appropriate data are submitted.

The Regulatory Position and Rationale states whether products containing this active ingredient are classified for restricted use. If they are restricted the draft label(s) submitted to the Agency as part of your application must reflect this determination (see below).

If you do not believe that your product should be classified for restricted use, you must submit any information and rationale with your application for reregistration. During the Agency's review of your application, your proposed classification determination will be evaluated in accordance with the provisions of 40 CFR 162.11(c). You will be notified of the Agency's classification decision.

Classification Labeling Requirements

If your product has been classified for restricted use, the following label requirements apply:

1. All uses restricted.

a. The statement "Restricted Use Pesticide" must appear at the top of the front panel of the label. The statement must be set in type of the same minimum size as required for human hazard signal word (see table in 40 CFR 162.10(h)(1)(iv)

b. Directly below this statement on the front panel, a summary statement of the terms of restriction must appear (including the reasons for restriction if specified in Section I). If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification."

2. Some but not all uses restricted. If the Regulatory Position and Rationale states that some uses are classified for restricted use, and some are unclassified, several courses of action are available:

a. You may label the product for Restricted use. If you do so, you may include on the label uses that are unrestricted, but you may not distinguish them on the label as being unrestricted.

b. You may delete all restricted uses from your label and submit draft labeling bearing only unrestricted uses.

c. You may "split" your registration, i.e., register two separate products with identical formulations, one bearing only unrestricted uses, and the other bearing restricted uses. To do so, submit two applications for reregistration, each containing all forms and necessary labels. Both applications should be submitted simultaneously. Note that the products will be assigned separate registration numbers.

Item 9B. MISUSE STATEMENT - All products must bear the misuse statement, "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." This statement appears at the beginning of the directions for use, directly beneath the heading of that section.

Item 10A. REENTRY STATEMENT - If a reentry interval has been established by the Agency, it must be included on the label. Additional worker protection statements may be required in accordance with PR Notice 83-2, March 29, 1983.

Item 10B. STORAGE AND DISPOSAL BLOCK - All labels are required to bear storage and disposal statements. These statements are developed for specific containers, sizes, and chemical content. These instructions must be grouped and appear under the heading "Storage and Disposal" in the directions for use. This heading must be set in the same type sizes as required for the child hazard warning. Refer to Appendix II, STOR, PEST/DIS, and CONT/DIS to determine the storage and disposal instructions appropriate for your products.

Item 10C. DIRECTIONS FOR USE - Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment. [40 CFR 162.10]

COLLATERAL LABELING

Bulletins, leaflets, circulars, brochures, data sheets, flyers, or other written or graphic printed matter which is referred to on the label or which is to accompany the product are termed collateral labeling. Such labeling may not bear claims or representations that differ in substance from those accepted in connection with registration of the product. It should be made part of the response to this notice and submitted for review.

LABELING REQUIREMENTS OF THE FIFRA, AS AMENDED

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
1	Product name	All products	Front panel	Center front panel	
2	Company name and address	All products	None	Bottom front panel or end of label text	If registrant is not the producer, must be qualified by "Packed for . . .," "Distributed by. . .," etc.
3	Net contents	All products	None	Bottom front panel or end of label text	May be in metric units in addition to U.S. units
4	EPA Reg. No.	All products	None	Front panel	Must be in similar type size and run parallel to other type.
5	EPA Est. No.	All products	None	Front panel, immediately before or following Reg. No.	May appear on the container instead of the label.
6A	Ingredients statement	All products	Front panel	Immediately following product name	Text must run parallel with other text on the panel.
6B	Pounds/gallon statement	Liquid products where dosage given as lbs. ai/unit area	Front panel	Directly below the main ingredients statement	
7	Front panel precautionary statements	All products	Front panel		All front panel precautionary statements must be grouped together, preferably blocked.
7A	Keep Out of Reach of Children (Child hazard warning)	All products	Front panel	Above signal word	Note type size requirements.
7B	Signal word	All products	Front panel	Immediately below child hazard warning	Note type size requirements.

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
7C	Skull & crossbones and word POISON (in red)	All products which are Category I based on oral, dermal, or inhalation toxicity	Front panel	Both in close proximity to signal word	
7D	Statement of Practical Treatment or First Aid	All products in Categories I, II, and III	Category I: Front panel unless referral statement is used. Others: Grouped with side panel precautionary statements.	Front panel for all.	
7E	Referral statement	All products where precautionary labeling appears on other than front panel.	Front panel		
8	Side/back panel precautionary statements	All products	None	Top or side of back panel preceding directions for use	Must be grouped under the headings in 8A, 8B, and 8C; preferably blocked.
8A	Hazards to humans and domestic animals	All products in Categories I, II, and III	None	Same as above	Must be preceded by appropriate signal word.
8B	Environmental hazards	All products	None	Same as above	Environmental hazards include bee caution where applicable.

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
8C	Physical or chemical hazards	All pressurized products, others with flash points under 150°F	None	Same as above	Refer to Appendix II guide PHYS/CHEM
9A	Restricted block	All restricted products	Top center of front panel	Preferably blocked	Includes a statement of the terms of restriction. The words "RESTRICTED USE PESTICIDE" must be same type size as signal word.
9B	Misuse statement	All products	Immediately following heading of directions for use		Required statement is: "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."
10A	Reentry statement	PR Notice 83-2 or as determined by the Agency	In the directions for use	Immediately after misuse statement	
10B	Storage and disposal block	All products	In the directions for use	Immediately before specific directions for use or at the end of directions for use	Must be set apart and clearly distinguishable from from other directions for use. Refer to Appendix II guides STOR, CONT/DIS, and PEST/DIS for further information and required statements.
10C	Directions for use	All products	None	None	May be in metric as well as U.S. units

§162.10 Labeling requirements.

(a) General--(1) Contents of the label. Every pesticide product shall bear a label containing the information specified by the Act and the regulations in this Part. The contents of a label must show clearly and prominently the following:

(i) The name, brand, or trademark under which the product is sold as prescribed in paragraph (b) of this section;

(ii) The name and address of the producer, registrant, or person for whom produced as prescribed in paragraph (c) of this section;

(iii) The net contents as prescribed in paragraph (d) of this section;

(iv) The product registration number as prescribed in paragraph (e) of this section;

(v) The producing establishment number as prescribed in paragraph (f) of this section;

(vi) An ingredient statement as prescribed in paragraph (g) of this section;

(vii) Warning or precautionary statements as prescribed in paragraph (h) of this section;

(viii) The directions for use as prescribed in paragraph (i) of this section; and

(ix) The use classification(s) as prescribed in paragraph (j) of this section.

(2) Prominence and legibility. (i) All words, statements, graphic representations, designs or other information required on the labeling by the Act or the regulations in this part must be clearly legible to a person with normal vision, and must be placed with such conspicuousness (as compared with other words, statements, designs, or graphic matter on the labeling) and expressed in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use.

(ii) All required label text must:

(A) Be set in 6-point or larger type;

(B) Appear on a clear contrasting background; and

(C) Not be obscured or crowded.

(3) Language to be used. All required label or labeling text shall appear in the English language. However, the Agency may require or the applicant may propose additional text in other languages as is considered necessary to protect the public. When additional text in another language is necessary, all labeling requirements will be applied equally to both the English and other-language versions of the labeling.

(4) Placement of Label--(i) General. The label shall appear on or be securely attached to the immediate container of the

pesticide product. For purposes of this Section, and the misbranding provisions of the Act, "securely attached" shall mean that a label can reasonably be expected to remain affixed during the foreseeable conditions and period of use. If the immediate container is enclosed within a wrapper or outside container through which the label cannot be clearly read, the label must also be securely attached to such outside wrapper or container, if it is a part of the package as customarily distributed or sold.

(ii) Tank cars and other bulk containers--(A) Transportation. While a pesticide product is in transit, the appropriate provisions of 49 CFR Parts 170-189, concerning the transportation of hazardous materials, and specifically those provisions concerning the labeling, marking and placarding of hazardous materials and the vehicles carrying them, define the basic Federal requirements. In addition, when any registered pesticide product is transported in a tank car, tank truck or other mobile or portable bulk container, a copy of the accepted label must be attached to the shipping papers, and left with the consignee at the time of delivery.

(B) Storage. When pesticide products are stored in bulk containers, whether mobile or stationary, which remain in the custody of the user, a copy of the label of labeling, including all appropriate directions for use, shall be securely attached to the container in the immediate vicinity of the discharge control valve.

(5) False or misleading statements. Pursuant to section 2(q)(1)(A) of the Act, a pesticide or a device declared subject to the Act pursuant to § 162.15, is misbranded if its labeling is false or misleading in any particular including both pesticidal and non-pesticidal claims. Examples of statements or representations in the labeling which constitute misbranding include:

(i) A false or misleading statement concerning the composition of the product;

(ii) A false or misleading statement concerning the effectiveness of the product as a pesticide or device;

(iii) A false or misleading statement about the value of the product for purposes other than as a pesticide or device;

(iv) A false or misleading comparison with other pesticides or devices;

(v) Any statement directly or indirectly implying that the pesticide or device is recommended or endorsed by any agency of the Federal Government;

(vi) The name of a pesticide which contains two or more principal active ingredients if the name suggests one or more but not all such principal active ingredients even though the names of the other ingredients are stated elsewhere in the labeling;

(vii) A true statement used in such a way as to give a false or misleading impression to the purchaser;

(viii) Label disclaimers which negate or detract from labeling statements required under the Act and these regulations;

(ix) Claims as to the safety of the pesticide or its ingredients, including statements such as "safe," "nonpoisonous," "noninjurious," "harmless" or "nontoxic to humans and pets" with or without such a qualifying phrase as "when used as directed"; and

(x) Non-numerical and/or comparative statements on the safety of the product, including but not limited to:

(A) "Contains all natural ingredients";

(B) "Among the least toxic chemicals known"

(C) "Pollution approved"

(6) Final printed labeling. (i) Except as provided in paragraph (a)(6)(ii) of this section, final printed labeling must be submitted and accepted prior to registration. However, final printed labeling need not be submitted until draft label texts have been provisionally accepted by the Agency.

(ii) Clearly legible reproductions or photo reductions will be accepted for unusual labels such as those silk-screened directly onto glass or metal containers or large bag or drum labels. Such reproductions must be of microfilm reproduction quality.

(b) Name, brand, or trademark. (1) The name, brand, or trademark under which the pesticide product is sold shall appear on the front panel of the label.

(2) No name, brand, or trademark may appear on the label which:

(i) Is false or misleading, or

(ii) Has not been approved by the Administrator through registration or supplemental registration as an additional name pursuant to § 162.6(b)(4).

(c) Name and address of producer, registrant, or person for whom produced. An unqualified name and address given on the label shall be considered as the name and address of the producer. If the registrant's name appears on the label and the registrant is not the producer, or if the name of the person for whom the pesticide was produced appears on the label, it must be qualified by appropriate wording such as "Packed for ***," "Distributed by ***," or "Sold by ***" to show that the name is not that of the producer.

(d) Net weight or measure of contents. (1) The net weight or measure of content shall be exclusive of wrappers or other materials and shall be the average content unless explicitly stated as a minimum quantity.

(2) If the pesticide is a liquid, the net content statement shall be in terms of liquid measure at 68°F (20°C) and shall be expressed in conventional American units of fluid ounces, pints, quarts, and gallons.

(3) If the pesticide is solid or semisolid, viscous or pressurized, or is a mixture of liquid and solid, the net content statement shall be in terms of weight expressed as avoirdupois pounds and ounces.

(4) In all cases, net content shall be stated in terms of the largest suitable units, i.e., "1 pound 10 ounces" rather than "26 ounces."

(5) In addition to the required units specified, net content may be expressed in metric units.

(6) Variation above minimum content or around an average is permissible only to the extent that it represents deviation unavoidable in good manufacturing practice. Variation below a stated minimum is not permitted. In no case shall the average content of the packages in a shipment fall below the stated average content.

(e) Product registration number. The registration number assigned to the pesticide product at the time of registration shall appear on the label, preceded by the phrase "EPA Registration No.," or the phrase "EPA Reg. No." The registration number shall be set in type of a size and style similar to other print on that part of the label on which it appears and shall run parallel to it. The registration number and the required identifying phrase shall not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency.

(f) Producing establishments registration number. The producing establishment registration number preceded by the phrase "EPA Est.", of the final establishment at which the product was produced may appear in any suitable location on the label or immediate container. It must appear on the wrapper or outside container of the package if the EPA establishment registration number on the immediate container cannot be clearly read through such wrapper or container.

(g) Ingredient statement--(1) General. The label of each pesticide product must bear a statement which contains the name and percentage by weight of each active ingredient, the total percentage by weight of all inert ingredients; and if the pesticide contains arsenic in any form, a statement of the percentages of total and water-soluble arsenic calculated as elemental arsenic. The active ingredients must be designated by the term "active ingredients" and the inert ingredients by the term "inert ingredients," or the singular forms of these terms when appropriate. Both terms shall be in the same type size, be aligned to the same margin and be equally prominent. The statement "Inert Ingredients, none" is not required for pesticides which contain 100 percent active ingredients. Unless the ingredient statement is a complete analysis of the pesticide, the term "analysis" shall not be used as a heading for the ingredient statement.

(2) Position of ingredient statement. (i) The ingredient statement is normally required on the front panel of the label. If there is an outside container or wrapper through which the ingredient statement cannot be clearly read, the ingredient statement must also appear on such outside container or wrapper. If the size or form of the package makes it impracticable to place the ingredient statement on the front panel of the label, permission may be granted for the ingredient statement to appear elsewhere.

(ii) The text of the ingredient statement must run parallel with other text on the panel on which it appears, and must be clearly distinguishable from and must not be placed in the body of other text.

(3) Names to be used in ingredient statement. The name used for each ingredient shall be the accepted common name, if there is one, followed by the chemical name. The common name may be used alone only if it is well known. If no common name has been established, the chemical name alone shall be used. In no case will the use of a trademark or proprietary name be permitted unless such name has been accepted as a common name by the Administrator under the authority of Section 25(c)(6).

(4) Statements of percentages. The percentages of ingredients shall be stated in terms of weight-to-weight. The sum of percentages of the active and the inert ingredients shall be 100. Percentages shall not be expressed by a range of values such as "22-25%." If the uses of the pesticide product are expressed as weight of active ingredient per unit area, a statement of the weight of active ingredient per unit volume of the pesticide formulation shall also appear in the ingredient statement.

(5) Accuracy of stated percentages. The percentages given shall be as precise as possible reflecting good manufacturing practice. If there may be unavoidable variation between manufacturing batches, the value stated for each active ingredient shall be the lowest percentage which may be present.

(6) Deterioration. Pesticides which change in chemical composition significantly must meet the following labeling requirements:

(i) In cases where it is determined that a pesticide formulation changes chemical composition significantly, the product must bear the following statement in a prominent position on the label: "Not for sale or use after [date]."

(ii) The product must meet all label claims up to the expiration time indicated on the label.

(7) Inert ingredients. The Administrator may require the name of any inert ingredient(s) to be listed in the ingredient statement if he determines that such ingredient(s) may pose a hazard to man or the environment.

(h) Warnings and precautionary statements. Required warnings and precautionary statements concerning the general areas of toxicological hazard including hazard to children, environmental hazard, and physical or chemical hazard fall into two groups; those required on the front panel of the labeling and those which may appear elsewhere. Specific requirements concerning content, placement, type size, and prominence are given below.

(1) Required front panel statements. With the exception of the child hazard warning statement, the text required on the front panel of the label is determined by the Toxicity Category of the pesticide. The category is assigned on the basis of the highest hazard shown by any of the indicators in the table below:

Hazard indicators	Toxicity categories			
	I	II	III	IV
Oral LD_{50}	Up to and including 50 mg/kg	From 50 thru 500 mg/kg	From 500 thru 5000 mg/kg	Greater than 5000 mg/kg
Inhalation LC_{50}	Up to and including .2 mg/liter	From .2 thru 2 mg/liter	From 2 thru 20 mg/liter	Greater than 20 mg/liter
Dermal LD_{50}	Up to and including 200 mg/kg	From 200 thru 2000	From 2,000 thru 20,000	Greater than 20,000
Eye effects	Corrosive; corneal opacity not reversible within 7 days	Corneal opacity reversible within 7 days; irritation persisting for 7 days	No corneal opacity; irritation reversible within 7 days	No irritation
Skin effects	Corrosive	Severe irritation at 72 hours	Moderate irritation at 72 hours	Mild or slight irritation at 72 hours

(i) Human hazard signal word.--(A) Toxicity Category I. All pesticide products meeting the criteria of Toxicity Category I shall bear on the front panel the signal word "Danger." In addition if the product was assigned to Toxicity Category I on the basis of its oral, inhalation or dermal toxicity (as distinct from skin and eye local effects) the word "Poison" shall appear in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word "poison."

(B) Toxicity Category II. All pesticide products meeting the criteria of Toxicity Category II shall bear on the front panel the signal word "Warning."

(C) Toxicity Category III. All pesticide products meeting the criteria of Toxicity Category III shall bear on the front panel the signal word "Caution."

(D) Toxicity Category IV. All pesticide products meeting the criteria of Toxicity Category IV shall bear on the front panel the signal word "Caution."

(E) Use of signal words. Use of any signal word(s) associated with a higher Toxicity Category is not permitted except when the Agency determines that such labeling is necessary to prevent unreasonable adverse effects on man or the environment. In no case shall more than one human hazard signal word appear on the front panel of a label.

(ii) Child hazard warning. Every pesticide product label shall bear on the front panel the statement "keep out of reach of children." Only in cases where the likelihood of contact with children during distribution, marketing, storage or use is demonstrated by the applicant to be extremely remote, or if the nature of the pesticide is such that it is approved for use on infants or small children, may the Administrator waive this requirement.

(iii) Statement of practical treatment--(A) Toxicity Category I. A statement of practical treatment (first aid or other) shall appear on the front panel of the label of all pesticides falling into Toxicity Category I on the basis of oral, inhalation or dermal toxicity. The Agency may, however, permit reasonable variations in the placement of the statement of practical treatment is some reference such as "See statement of practical treatment on back panel" appears on the front panel near the word "Poison" and the skull and crossbones.

(B) Other toxicity categories. The statement of practical treatment is not required on the front panel except as described in paragraph (h)(1)(iii)(A) of this section. The applicant may, however, include such a front panel statement at his option. Statements of practical treatment are, however, required elsewhere on the label in accord with paragraph (h)(2) of this section if they do not appear on the front panel.

(iv) Placement and prominence. All the required front panel warning statements shall be grouped together on the label, and shall appear with sufficient prominence relative to other front panel text and graphic material to make them unlikely to be overlooked under customary conditions of purchase and use. The following table shows the minimum type size requirements for the front panel warning statements on various sizes of labels:

Size of label front panel in square inches	Points	
	Required signal word, all capitals	"Keep out of reach of Children"
5 and under	6	6
Above 5 to 10	10	6
Above 10 to 15	12	8
Above 15 to 30	14	10
Over 30	18	12

(2) Other required warnings and precautionary statements. The warnings and precautionary statements as required below shall appear together on the label under the general heading "Precautionary Statements" and under appropriate subheadings of "Hazard to Humans and Domestic Animals," "Environmental Hazard" and "Physical or Chemical Hazard."

(i) Hazard to humans and domestic animals. (A) Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. The precautionary paragraph shall be immediately preceded by the appropriate hazard signal word.

(B) The following table depicts typical precautionary statements. These statements must be modified or expanded to reflect specific hazards.

Toxicity category	Precautionary statements by toxicity category	
	Oral, inhalation, or dermal toxicity	Skin and eye local effects
I . . .	Fatal (poisonous) if swallowed [inhaled or absorbed through skin]. Do not breathe vapor [dust] or spray mist]. Do not get in eyes, on skin, or on clothing [Front panel statement of practical treatment required.].	Corrosive, causes eye and skin damage [or skin irritation]. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. [Appropriate first aid statement required.]
II . . .	May be fatal if swallowed [inhaled or absorbed through the skin]. Do not breathe vapors [dust or spray mist]. Do not get in eyes, on skin, or on clothing. [Appropriate first aid statements required.].	Causes eye [and skin] irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. [Appropriate first aid statement required.].
III . . .	Harmful if swallowed [inhaled or absorbed through the skin]. Avoid breathing vapors [dust or spray mist]. Avoid contact with skin [eyes or clothing]. [Appropriate first aid statement required.].	Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.
IV . . .	[No precautionary statements required.].	[No precautionary statements required.].

(ii) Environmental hazards. Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury or

damage. Examples of the hazard statements and the circumstances under which they are required follow:

(A) If a pesticide intended for outdoor use contains an active ingredient with a mammalian acute oral LD_{50} of 100 or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(B) If a pesticide intended for outdoor use contains an active ingredient with a fish acute LC_{50} of 1 ppm or less, the statement "This Pesticide is Toxic to Fish" is required.

(C) If a pesticide intended for outdoor use contains an active ingredient with an avian acute oral LD_{50} of 100 mg/kg or less, or a subacute dietary LC_{50} of 500 ppm or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(D) If either accident history or field studies demonstrate that use of the pesticide may result in fatality to birds, fish or mammals, the statement "This pesticide is extremely toxic to wildlife (fish)" is required.

(E) For uses involving foliar application to agricultural crops, forests, or shade trees, or for mosquito abatement treatments, pesticides toxic to pollinating insects must bear appropriate label cautions.

(F) For all outdoor uses other than aquatic applications the label must bear the caution "Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes."

(iii) Physical or chemical hazards. Warning statements on the flammability or explosive characteristics of the pesticide are required as follows:

Flash point	Required text
(A) PRESSURIZED CONTAINERS	
Flash point at or below 20°F; if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
Flash point above 20°F and not over 80°F or if the flame extension is more than 18 in. long at a distance of 6 in. from the flame.	Flammable. Contents under pressure. Keep away from heat, sparks, and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
All other pressurized containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
(B) NONPRESSURIZED CONTAINERS	
At or below 20°F	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
Above 20°F and not over 80°F	Flammable. Keep away from heat and open flame.
Above 80°F and not over 150°F	Do not use or store near heat or open flame.

(i) Directions for Use--(1) General requirements--(i) Adequacy and clarity of directions. Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment.

(ii) Placement of directions for use. Directions may appear on any portion of the label provided that they are conspicuous enough to be easily read by the user of the pesticide product. Directions for use may appear on printed or graphic matter which accompanies the pesticide provided that:

(A) If required by the Agency, such printed or graphic matter is securely attached to each package of the pesticide, or placed within the outside wrapper or bag;

(B) The label bears a reference to the directions for use in accompanying leaflets or circulars, such as "See directions in the enclosed circular." and

(C) The Administrator determines that it is not necessary for such directions to appear on the label.

(iii) Exceptions to requirement for direction for use--(A) Detailed directions for use may be omitted from labeling of pesticides which are intended for use only by manufacturers of products other than pesticide products in their regular manufacturing processes, provided that:

(1) The label clearly shows that the product is intended for use only in manufacturing processes and specifies the type(s) of products involved.

(2) Adequate information such as technical data sheets or bulletins, is available to the trade specifying the type of product involved and its proper use in manufacturing processes;

(3) The product will not come into the hands of the general public except after incorporation into finished products; and

(4) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(B) Detailed directions for use may be omitted from the labeling of pesticide products for which sale is limited to physicians, veterinarians, or druggists, provided that:

(1) The label clearly states that the product is for use only by physicians or veterinarians;

(2) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment; and

(3) The product is also a drug and regulated under the provisions of the Federal Food, Drug and Cosmetic Act.

(C) Detailed directions for use may be omitted from the labeling of pesticide products which are intended for use only by formulators in preparing pesticides for sale to the public, provided that:

(1) There is information readily available to the formulators on the composition, toxicity, methods of use, applicable restrictions or limitations, and effectiveness of the product for pesticide purposes;

(2) The label clearly states that the product is intended for use only in manufacturing, formulating, mixing, or repacking for use as a pesticide and specifies the type(s) of pesticide products involved;

(3) The product as finally manufactured, formulated, mixed, or repackaged is registered; and

(4) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(2) Contents of Directions for Use. The directions for use shall include the following, under the headings "Directions for Use":

(i) The statement of use classification as prescribed in 162.10(j) immediately under the heading "Directions for Use."

(ii) Immediately below the statement of use classification, the statement "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."

(iii) The site(s) of application, as for example the crops, animals, areas, or objects to be treated.

(iv) The target pest(s) associated with each site.

(v) The dosage rate associated with each site and pest.

(vi) The method of application, including instructions for dilution, if required, and type(s) of application apparatus or equipment requried.

(vii) The frequency and timing of applications necessary to obtain effective results without causing unreasonable adverse effects on the environment.

(viii) Specific limitations on reentry to areas where the pesticide has been applied, meeting the requirements concerning reentry provided by 40 CFR Part 170.

(ix) Specific directions concerning the storage and disposal of the pesticide and its container, meeting the requirements of 40 CFR Part 165. These instructions shall be grouped and appear under the heading "Storage and Disposal." This heading must be set in type of the same minimum sizes as required for the child hazard warning (See Table in § 162.10(h)(1)(iv).)

(x) Any limitations or restrictions on use required to prevent unreasonable adverse effects, such as:

(A) Required intervals between application and harvest of food or feed crops.

(B) Rotational crop restrictions.

(C) Warnings as required against use on certain crops, animals, objects, or in or adjacent to certain areas.

(D) [Reserved]

(E) For restricted use pesticides, a statement that the pesticide may be applied under the direct supervision of a certified applicator who is not physically present at the site of application but nonetheless available to the person applying the pesticide, unless the Agency has determined that the pesticide may only be applied under the direct supervision of a certified applicator who is physically present.

(F) Other pertinent information which the Administrator determines to be necessary for the protection of man and the environment.

(j) Statement of Use Classification. By October 22, 1976, all pesticide products must bear on their labels a statement of use classification as described in paragraphs (j)(1) and (2) of this section. Any pesticide product for which some uses are classified for general use and others for restricted use shall be separately labeled according to the labeling standards set forth in this subsection, and shall be marketed as separate products with different registration numbers, one bearing directions only for general use(s) and the other bearing directions for restricted use(s) except that, if a product has both restricted use(s) and general use(s), both of these uses may appear on a product labeled for restricted use. Such products shall be subject to the provisions of § 162.10(j)(2).

(1) General Use Classification. Pesticide products bearing directions for use(s) classified general shall be labeled with the exact words "General Classification" immediately below the heading "Directions for Use." And reference to the general classification that suggests or implies that the general utility of the pesticide extends beyond those purposes and uses contained in the Directions for Use will be considered a false or misleading statement under the statutory definitions of misbranding.

(2) Restricted Use Classification. Pesticide products bearing direction for use(s) classified restricted shall bear statements of restricted use classification on the front panel as described below:

(i) Front panel statement of restricted use classification. (A) At the top of the front panel of the label, set in type of the same minimum sizes as required for human hazard signal words (see table in § 162.10(h)(1)(iv)), and appearing with sufficient prominence relative to other text and graphic material on the front panel to make it unlikely to be overlooked under customary conditions of purchase and use, the statement "Restricted Use Pesticide" shall appear.

(B) Directly below this statement on the front panel, a summary statement of the terms of restriction imposed as a precondition to registration shall appear. If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification." If, however, other regulatory restrictions are imposed, the Administrator will define the appropriate wording for the terms of restriction by regulation.

(k) Advertising. [Reserved]

[40 FR 28268, July 3, 1975; 40 FR 32329, Aug. 1, 1975; 40 FR 38571, Aug. 21, 1975, as amended at 43 FR 5786, Feb. 9, 1978]

PHYS/CHEM-1

PHYSICAL/CHEMICAL HAZARDS

Criteria	Required Label Statement
I. Pressurized Containers	
A. Flashpoint at or below 20°F; or if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
B. Flashpoint above 20°F and not over 80°F; or if the flame extension is more than 18 inches long at a distance of 6 inches from the valve opening.	Flammable. Contents under pressure. Keep away from heat, sparks, and flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
C. All Other Pressurized Containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
II. Non-Pressurized Containers	
A. Flashpoint at or below 20°F.	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
B. Flashpoint above 20°F and not over 80°F.	Flammable. Keep away from heat and open flame.
C. Flashpoint over 80°F and not over 150°F.	Do not use or store near heat and open flame.
D. Flashpoint above 150°F.	None required.

STOR-1

STORAGE INSTRUCTIONS FOR PESTICIDES

Heading:

All products are required to bear specific label instructions about storage and disposal. Storage and disposal instructions must be grouped together in the directions for use portion of the label under the heading STORAGE AND DISPOSAL. Products intended solely for domestic use need not include the heading "STORAGE AND DISPOSAL."

Storage Instructions:

All product labels are required to have appropriate storage instructions. Specific storage instructions are not prescribed. Each registrant must develop his own storage instructions, considering, when applicable, the following factors:

1. Conditions of storage that might alter the composition or usefulness of the pesticide. Examples could be temperature extremes, excessive moisture or humidity, heat, sunlight, friction, or contaminating substances or media.

2. Physical requirements of storage which might adversely affect the container of the product and its ability to continue to function properly. Requirements might include positioning of the container in storage, storage or damage due to stacking, penetration of moisture, and ability to withstand shock or friction.

3. Specifications for handling the pesticide container, including movement of container within the storage area, proper opening and closing procedures (particularly for opened containers), and measures to minimize exposure while opening or closing container.

4. Instructions on what to do if the container is damaged in any way, or if the pesticide is leaking or has been spilled, and precautions to minimize exposure if damage occurs.

5. General precautions concerning locked storage, storage in original container only, and separation of pesticides during storage to prevent cross-contamination of other pesticides, fertilizer, food, and feed.

6. General storage instructions for household products should emphasize storage in original container and placement in locked storage areas.

CONT/DIS-1

CONTAINER DISPOSAL INSTRUCTIONS

The label of each product must bear container disposal instructions appropriate to the type of container.

1. Domestic use products must bear one of the following container disposal statements:

Container Type	Statement
Non-aerosol products (bottles, cans, jars)	Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash.
Non-aerosol products (bags)	Do not reuse bag. Discard bag in trash.
Aerosol products	Replace cap and discard containers in trash. Do not incinerate or puncture.

2. All other products must bear container disposal instructions, based on container type, listed below:

Container Type	Statement
Metal containers (non-aerosol)	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Plastic containers	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Glass containers	Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.
Fiber drums with liners	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused[1], dispose of in the same manner.
Paper and plastic bags	Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Compressed gas cylinders	Return empty cylinder for reuse (or similar wording)

1/ Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

PESTICIDE DISPOSAL INSTRUCTIONS

The label of all products, except those intended solely for domestic use, must bear explicit instructions about pesticide disposal. The statements listed below contain the exact wording that must appear on the label of these products:

1. The labels of all products, except domestic use, must contain the statement, "Do not contaminate water, food, or feed by storage or disposal."

2. Except those products intended solely for domestic use, the labels of all products that contain active ingredients that are Acute Hazardous Wastes or are assigned to Toxicity Category I on the basis of oral or dermal toxicity, or Toxicity Category I or II on the basis of acute inhalation toxicity must bear the following pesticide disposal statement:

> "Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

3. The labels of all products, except those intended for domestic use containing active or inert ingredients that are Toxic Hazardous Wastes or meet any of the criteria in 40 CFR 261, Subpart C for a hazardous waste must bear the following pesticide disposal statement:

> "Pesticide wastes are toxic. Improper disposal of excess pesticide spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

4. Labels for all other products, except those intended for domestic use, must bear the following pesticide disposal statement:

> "Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

5. Products intended for domestic use only must bear the following disposal statement: "Securely wrap original container in several layers of newspaper and discard in trash."

INAL
I/M AI
)98701

PHENMEDIPHAM*

TYPE PESTICIDE: Herbicide

FORMULATIONS:
Tech (97%)
EC (0.66 lb/gal or 8% a.i., 1.3 lb/gal or 15.9% a.i.)

GENERAL WARNINGS AND LIMITATIONS: A postemergence herbicide applied as a broadcast or band spray to control broadleaf weeds and grasses. This product is toxic to fish; do not apply to bodies of water, wetlands, or where runoff is likely to occur. If application must be made on days with extreme temperatures and/or brightness, delay spraying until evening. Rainfall within 6 hours of application may reduce weed control. Do not apply when wind velocity is over 10 miles per hour. Do not allow spray drift to contact adjacent crops. Do not spray while dew is present. Crops may be severely injured if treated before the 2-leaf stage in sugar beets and the 4- to 6-leaf stage in table beets and spinach. Do not add additional wetting agents or adjuvants. For band treatment, reduce dosages proportionally.

TIME REQUIRED FOR CONTROL: Not located.

PHYTOTOXICITY TO TARGET WEEDS: Not located.

PHYTOTOXICITY TO CROPS: May cause temporary growth retardation and/or chlorosis or tip-burn.

MODE OF ACTION: Strong inhibitor of the Hill reaction.

BROADLEAF WEEDS CONTROLLED:

PBFDCBC	Annual sowthistle
PARABBB	Coast fiddleneck
PAZAOBB	Common chickweed
PBDAEBA	Common lambsquarter
PEDADBA	Common purslane
PBFAEBA	Common ragweed
PEWAHBM	Lanceleaf groundcherry
PBKBDBB	London rocket
PBDAEBI	Nettleleaf goosefoot
PBKAHBA	Shepherdspurse
PBKBKBB	Wild mustard

*Spin-aid (betanal)
methyl m-hydroxycarbanilate m-methyl carbanilate

PHENMEDIPHAM

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	TERRESTRIAL FOOD CROP	
	(Agricultural Crops)	
14001AA	Beets, Table	0.2 (N) ppm 60 day preharvest interval.
	0.49-0.98 (1.3 lb/gal EC) 045639-00076	Postemergence. Broadcast or band. Apply after the 4 to 6-true leaf stage of the crop, in 11 to 22 gallons of water per acre by ground, or 5 to 20 gallons of water per acre by air. Use the higher dosage on a well established crop which is not under stress.
13024AA 13024BA	Spinach (for processing)	0.5 ppm 40 day preharvest interval.
	0.49-0.98 (1.3 lb/gal EC) 045639-00076	Postemergence. Broadcast or band. Apply after the 4-6 true leaf stage of the crop, in 11 to 22 gallons of water per acre by ground or 5 to 20 gallons of water per acre by air. Use the higher dosage on well established spinach plants which are not under stress.
28020AA	Sugar Beets	0.1 (N) ppm (roots, tops) 90 day preharvest interval. General Information: Do not exceed a total of 0.99 pound active ingredient per acre per season.
	[MAI] 0.37-0.62 (0.66 lb/gal EC)	Postemergence. Broadcast or band. Apply after the 2-true leaf stage of the crop, in 20 to 50 gallons of water per acre by ground or 5 to 15 gallons of water per acre by air. A second application to control late germinating weeds may be made at least 7 days later, or after the beets have at least 4 true leaves. The dosage for the second application should not exceed 0.5 pound active ingredient per acre of phenmedipham. Use the higher dosage on a well established crop which is not under stress. Formulated with desmedipham.
	[MAI] 0.17-0.25 (0.66 lb/gal EC)	Use limited to all sugar beet growing areas except CA. Broadcast or band. Apply at any stage of crop growth to control early germinating, difficult to control weeds. Apply in 5 to 10 gallons of water per acre when the earliest emerging weeds have reached cotyledon size. A second application

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Sugar Beets (continued)	
		should be made 5 to 7 days after the first, or when another flush of weeds germinates. Formulated with desmedipham.
	TERRESTRIAL NONFOOD CROP	
	(Agricultural Crops)	
13024BA	Spinach (seed crop)	N.F.
		Refer to TERRESTRIAL FOOD CROP, (Agricultural Crops), Spinach (for processing) for use and dose information.
	AERIAL AND TANK MIX APPLICATIONS	
001500 AAAAAA	Aerial Application	
	—	Refer to TERRESTRIAL FOOD CROP (Agricultural Crops) Beets, Table; Spinach; Sugar Beets TERRESTRIAL NONFOOD CROP (Agricultural Crops) Spinach (seed crop)

Listing of Registered Pesticide Products by Formulation

97.0001 97% technical chemical
phenmedipham (098701)
045639-00084

:08.0012 8% a.i. (0.66 lb/gal) emulsifiable concentrate
phenmedipham (098701) plus desmedipham (104801)
045639-00087

:15.9012 15.9% a.i. (1.3 lb/gal) emulsifiable concentrate
phenmedipham (098701)
045639-00076

999999 State Label Registrations

CA Reg No.
002139-04339

Appendix A-1

Listing of Active Ingredient(s) Found in Combination With the Report Chemical

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
104801	—	desmedipham

— Use EPA Acceptable Common/Chemical Name

PHENMEDIPHAM

Auxiliary Documentation

Registration Number 000491-00210 does not contain phenmedipham (as an active ingredient) and therefore was not extracted for this report.

PROG: TIR01B

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS

RUN DATE: 05/22/86
PAGE NO.: 1

TOLERANCE INDEX BY SHAUGHNESSY CODE: 098701- H

CHEMICAL NAME: Phenmedipham (methyl m-hydroxycarbanilate m-methyl carbanil
ate)

CFR	PPM	COMMODITY CODE	COMMODITY SEQUENCE	COMMODITY NAME
180.278	0.5	13024AA	1112	SPINACH
	0.2H	14001AA	132	BEETS
	0.1N	23069AA	153	BEETS, SUGAR, TOPS
	0.1N	25002AA	150	BEETS, SUGAR, ROOTS

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BIBGUIDE-1

GUIDE TO USE OF THIS BIBLIOGRAPHY FOR PHENMEDIPHAM

1. CONTENT OF BIBLIOGRAPHY. This bibliography contains citations of all studies considered relevant by EPA in arriving at the positions and conclusions stated elsewhere in the Standard. Primary sources for studies in this bibliography have been the body of data submitted to EPA and its predecessor agencies in support of past regulatory decisions. Selections from other sources including the published literature, in those instances where they have been considered, will be included.

2. UNITS OF ENTRY. The unit of entry in this bibliography is called a "study." In the case of published materials, this corresponds closely to an article. In the case of unpublished materials submitted to the Agency, the Agency has sought to identify documents at a level parallel to the published article from within the typically larger volumes in which they were submitted. The resulting "studies" generally have a distinct title (or at least a single subject), can stand alone for purposes of review, and can be described with a conventional bibliographic citation. The Agency has attempted also to unite basic documents and commentaries upon them, treating them as a single study.

3. IDENTIFICATION OF ENTRIES. The entries in this bibliography are sorted numerically by "Master Record Identifier," or MRID, number. This number is unique to the citation, and should be used at any time specific reference is required. It is not related to the six-digit "Accession Number" which has been used to identify volumes of submitted studies; see paragraph 4(d)(4) below for a further explanation. In a few cases, entries added to the bibliography late in the review may be preceded by a nine-character temporary identifier. These entries are listed after all MRID entries. This temporary identifier number is also to be used whenever specific reference is needed.

4. FORM OF ENTRY. In addition to the Master Record Identifier (MRID), each entry consists of a citation containing standard elements followed, in the case of material submitted to EPA, by a description of the earliest known submission. Bibliographic conventions used reflect the standards of the American National Standards Institute (ANSI), expanded to provide for certain special needs.

OMB Approval No. 2000-0468 (Expires: 12-31-83)

CERTIFICATION OF ATTEMPT TO ENTER INTO AN AGREEMENT WITH OTHER REGISTRANTS FOR DEVELOPMENT OF DATA

(To qualify, certify ALL four items)

1. I am duly authorized to represent the following firm(s) who are subject to the requirements of a Notice under FIFRA Section 3(c)(2)(B) contained in a Guidance Document to submit data concerning the active ingredient:

GUIDANCE DOCUMENT DATE

ACTIVE INGREDIENT

NAME OF FIRM	EPA COMPANY NUMBER

(This firm or group of firms is referred to below as "my firm".)

2. My firm is willing to develop and submit the data as required by that Notice, if necessary. However, my firm would prefer to enter into an agreement with one or more other registrants to develop jointly, or to share in the cost of developing, the following required items or data:

3. My firm has offered in writing to enter into such an agreement. Copies of the offers are attached. That offer was irrevocable and included an offer to be bound by an arbitration decision under FIFRA Section 3(c)(2)(B)(iii) if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

NAME OF FIRM	DATE OF OFFER

However, none of those firm(s) accepted my offer.

4. My firm requests that EPA not suspend the registration(s) of my firm's product(s), if any of the firms named in paragraph (3) above have agreed to submit the data listed in paragraph (2) above in accordance with the Notice. I understand EPA will promptly inform me whether my firm must submit data to avoid suspension of its registration(s) under FIFRA Section 3(c)(2)(B). (This statement does not apply to applicants for new products.) I give EPA permission to disclose this statement upon request.

TYPED NAME	SIGNATURE	DATE

a. Author. Whenever the Agency could confidently identify one, the Agency has chosen to show a personal author. When no individual was identified, the Agency has shown an identifiable laboratory or testing facility as author. As a last resort, the Agency has shown the first submitter as author.

b. Document Date. When the date appears as four digits with no question marks, the Agency took it directly from the document. When a four-digit date is followed by a question mark, the bibliographer deduced the date from evidence in the document. When the date appears as (19??), the Agency was unable to determine or estimate the date of the document.

c. Title. In some cases, it has been necessary for Agency bibliographers to create or enhance a document title. Any such editorial insertions are contained between square brackets.

d. Trailing Parentheses. For studies submitted to the Agency in the past, the trailing parentheses include (in addition to any self-explanatory text) the following elements describing the earliest known submission:

(1) Submission Date. The date of the earliest known submission appears immediately following the word "received."

(2) Administrative Number. The next element, immediately following the word "under," is the registration number, experimental use permit number, petition number, or other administrative number associated with the earliest known submission.

(3) Submitter. The third element is the submitter, following the phrase "submitted by." When authorship is defaulted to the submitter, this element is omitted.

(4) Volume Identification (Accession Numbers). The final element in the trailing parentheses identifies the EPA accession number of the volume in which the original submission of the study appears. The six-digit accession number follows the symbol "CDL," standing for "Company Data Library." This accession number is in turn followed by an alphabetic suffix which shows the relative position of the study within the volume. For example, within accession number 123456, the first study would be 123456-A; the second, 123456-B; the 26th, 123456-Z; and the 27th, 123456-AA.

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OMB Approval No. 2000-0468 (Expires 12-31-83)

FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET

EPA REGISTRATION NO.

PRODUCT NAME

APPLICANT'S NAME

DATE GUIDANCE DOCUMENT ISSUED

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner:

☐ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use:

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products):

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

REGISTRANT'S AUTHORIZED REPRESENTATIVE	SIGNATURE	DATE

EPA Form 8580-1 (10-82)

PRODUCT SPECIFIC DATA REPORT

EPA Reg. No._____ Date _____

Guidance Document for _____

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by		(For EPA Use Only) Accession Numbers Assigned
			Citing MRID Number or EPA Accession Number	Submitting Data (Attached)	
§158.120 PRODUCT CHEMISTRY					
61-1	Identity of ingredients				
61-2	Statement of composition				
61-3	Discussion of formation of ingredients				
62-1	Preliminary analysis				
62-2	Certification of limits				
62-3	Analytical methods for enforcement limits				
63-2	Color				
63-3	Physical state				
63-4	Odor				
63-5	Melting point				
63-6	Boiling point				
63-7	Density, bulk-density, or specific gravity				
63-8	Solubility				
63-9	Vapor pressure				
63-10	Dissociation constant				
63-11	Octanol/water partition coefficient				
63-12	pH				

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by		(For EPA Use Only) Accession Numbers Assigned
			Citing MRID Number or EPA Accession Number	Submitting Data (Attached)	
63-13	Stability				
63-14	Oxidizing/reducing reaction				
63-15	Flammability				
63-16	Explodability				
63-17	Storage stability				
63-18	Viscosity				
63-19	Miscibility				
63-20	Corrosion characteristics				
63-21	Dielectric breakdown voltage				
§158.135 TOXICOLOGY					
81-1	Acute oral toxicity, rat				
81-2	Acute dermal toxicity, rabbit				
81-3	Acute inhalation, toxicity, rat				
81-4	Primary eye irritation, rabbit				
81-5	Primary dermal irritation				
81-6	Dermal sensitization				

B367
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OMB Approval No. 2000-0468
Expiration Date 5/31/86

ATTACHMENT D

GENERIC DATA EXEMPTION STATEMENT

EPA Product Registration Number: _____

Registrant's Name: _____

and Address: _____

_____

As an authorized representative of the registrant of the product identified above, I certify that:

(1) I have read and am familiar with the terms of the Notice from EPA dated _____ concerning a requirement for submission of generic data on the active ingredient named under FIFRA sec. 3(c)(2)(B).

(2) My firm requests that EPA not suspend the registration of our product, despite our lack of intent to submit the generic data in question, on the grounds that the product contains the active ingredient solely as the result of the incorporation into the product of another product which contains that active ingredient, which is registered under FIFRA sec. 3, and which is purchased by us from another producer.

(3) An accurate Confidential Statement of Formula (CSF) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the subject active ingredient in my firm's product,

OR

The CSF dated _____ on file with EPA is complete, current and accurate and contains the information requested on the current CSF Form No. 8570-4. The registered source(s) of the above named active ingredient in my product(s) is/are _____
and their registration number(s) is/are _____

My firm will apply for an amendment to the registration prior to changing the source of the active ingredient in our product.

(4) I understand, and agree on behalf of my firm, that if at any time any portion of this Statement is no longer true, or if my firm fails to comply with the undertakings made in this Statement, my firm's product's registration may be suspended under FIFRA sec. 3(c)(2)(B).

Registrant's authorized representative: _____
Signature

Dated: _____ _____
(Typed)